# PROPRIETARY RIGHTS AND DATA

THE UNIVERSITY
OF MICHIGAN

AUG 10 1960

MAIN
READING ROOM

## HEARINGS

BEFORE

## SUBCOMMITTEE NO. 2

OF THE

## SELECT COMMITTEE ON SMALL BUSINESS
## HOUSE OF REPRESENTATIVES

EIGHTY-SIXTH CONGRESS

SECOND SESSION

PURSUANT TO

## H. Res. 51

A RESOLUTION CREATING A SELECT COMMITTEE
TO CONDUCT A STUDY AND INVESTIGATION
OF THE PROBLEMS OF SMALL BUSINESS

MARCH 29, 30, AND 31, 1960

Printed for the use of the Select Committee on Small Business

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# CONTENTS

Statement by—
Smith, Hon. H. Allen, a Representative in Congress from the State of California — Page 3
Testimony of—
Airborne Research & Development Corp., Richard Hahn, president — 38, 51
Air Logistics, Inc., Henry Marcheschi, assistant to the vice president, customer relations and contracts — 56
Bannerman, G. C., Director for Procurement Policy, Office of the Assistant Secretary of Defense (Supply and Logistics) — 121
Department of Defense:
Office of the Assistant Secretary of Defense (Supply and Logistics):
Bannerman, G. C., Director for Procurement Policy — 121
Johnson, R. Tenney, Office of Assistant General Counsel — 121
McGuire, Hon. Perkins, Assistant Secretary — 119
Williamson, Howard C. H., procurement specialist — 121
Endevco Corp., H. Dudley Wright, president — 112
Garrett Corp., Denham S. Scott — 103
Hackman, Kenneth V., president, Southwest Products Co — 95
Hahn, Richard, president, Airborne Research & Development Corp — 38, 51
Hipkins, Donald A., Deputy Administrator, Small Business Administration — 146
Johnson, R. Tenney, Office of Assistant General Counsel, Department of Defense — 121
Lent, Robert R., vice president, Riggs Nucleonics Corp — 17, 51
McCallum, Philip, Administrator, Small Business Administration — 146
McGuire, Hon. Perkins, Assistant Secretary of Defense (Supply and Logistics) — 119
Marcheschi, Henry, assistant to the vice president, customer relations and contracts, Air Logistics, Inc — 56
Marschalk, John, consultant — 156
Riggs Nucleonics Corp., Robert R. Lent, vice president — 17, 51
Scott, Denham S., Garrett Corp — 103
Small Business Administration:
Hipkins, Donald A., Deputy Administrator — 146
McCallum, Philip, Administrator — 146
Southwest Products Co., Kenneth V. Hackman, president — 95
Task Corp., Elmer F. Ward, president — 76
Ward, Elmer F., president, Task Corp — 76
Williamson, Howard C. H., procurement specialist, Office of Procurement Policy — 121
Wright, H. Dudley, president, Endevco Corp — 112
Additional material supplied for the record:
Bannerman, G. C., Director for Procurement Policy, Office of the Assistant Secretary of Defense (Supply and Logistics):
Letter dated April 12, 1960, from Congressman Multer — 142
Letter dated May 9, 1960, to Congressman Multer with answers to questions asked by Victor P. Dalmas — 143
Department of Defense, G. C. Bannerman, Director for Procurement Policy, Office of the Assistant Secretary for Defense (Supply and Logistics):
Letter dated April 12, 1960, from Congressman Multer — 142
Letter dated May 9, 1960, to Congressman Multer with answers to questions asked by Victor P. Dalmas — 143
Endevco Corp., H. Dudley Wright, president, statement — 100

Additional material supplied for the record—Continued
Page
Harris, H. E., Harrel, Inc., letter dated March 28, 1960, to Congressman Multer 155
Marschalk, John, consultant, letter dated April 16, 1960, to Congressman Multer 167
Norblad, Hon. Walter, a Representative in Congress from the State of Oregon, letter dated March 30, 1960, to Congressman Multer, with a letter from W. B. Webber, vice president, Tektronix, Inc., dated March 28, 1960, enclosed 152
Request for quotation from University of California purchasing department to Task Corp., dated January 29, 1958 91
Regulation pertaining to copyrights and data as revised October 15, 1958 6
Robbins, Hugh C., president, Robbins Aviation, Inc.:
Letter dated March 9, 1960, to Congressman Multer 153
Letter dated March 25, 1960, to Congressman Multer 153
Robinson, Glen P., Jr., president, Scientific-Atlanta, Inc., letter dated March 30, 1960, to Congressman Multer 154
Scholz, W. V., district representative, Vickers, Inc., letter dated January 26, 1960, to Lyle Gransee, senior buyer, missiles and space division, Lockheed Aircraft Corp 89
Scientific-Atlanta, Inc., Glen P. Robinson, Jr., president, letter dated March 30, 1960, to Congressman Multer 154
Strategic Industries Association, membership roster as of January 1, 1960 22
Task Corp., Elmer F. Ward, president, telegraphic report from Richard N. Rigney, engineer 88
Vickers, Inc., W. V. Scholz, district representative, letter dated January 26, 1960, to Lyle Gransee, senior buyer, missiles and space division, Lockheed Aircraft Corp 89
Ward, Elmer F., president, Task Corp., telegraphic report from Richard N. Rigney, engineer 88
Wright, H. Dudley, president, Endevco Corp., statement 100
Appendix:
Appendix No. 1 169
Appendix No. 2 170
Appendix No. 3 174
Appendix No. 4 178
Appendix No. 5 182
Appendix No. 6 187
Appendix No. 7 196
Appendix No. 8 204
Appendix No. 9 205
Appendix No. 10 209
Appendix No. 11 209
Appendix No. 12 211
Appendix No. 13 212
Bannerman, G. C., Director for Procurement Policy, Office of the Assistant Secretary for Defense (Supply and Logistics), letter dated April 22 to Congressman Multer 174
Department of Defense:
Air Force:
Engineering data requirements for USAF materiel and services, June 1, 1959 170
Maj. Gen. William T. Thurman, Assistant for Production Programing, Deputy Chief of Staff, Materiel (for the Chief of Staff), letter dated May 3, 1960, with five enclosures, to Congressman Multer 187
Army: Brig. Gen. S. R. Hanmer, Deputy Chief of Engineers for Military Operations, letter dated April 19, 1960, with four enclosures to Congressman Multer 178
Office of the Assistant Secretary for Defense (Supply and Logistics):
Bannerman, G. C., Director for Procurement Policy, letter dated April 22, 1960, to Congressman Multer 174
McGuire, Hon. Perkins, Assistant Secretary—memorandum dated April 9, 1959 169

Appendix—Continued

Department of Defense—Continued
Navy:
Capt. T. P. Smith, Jr., Deputy Chief of Legislative Affairs (Acting), Office of Legislative Liaison, Office of the Secretary, letter dated April 27, 1960, with three enclosures, to Congressman Multer — Page 182
Comments on statement of John Marschalk — 186
Garrett Corp., Denham S. Scott, letter dated June 23, 1960, to Congressman Multer — 212
General Accounting Office views and comments on problem of proprietary rights and data as administered by the military departments under section IX, part 2 of ASPR — 205
Hackman, K. V., president, Southwest Products Co., letter dated June 14, 1960, to Congressman Multer, with two enclosures — 211
Hanmer, Brig. Gen. S. R., Deputy Chief of Engineers for Military Operations, Department of the Army, letter to Congressman Multer dated April 19, 1960, with four enclosures — 178
List of letters received commenting on "Proprietary Rights and Data" hearings — 209
McGuire, Hon. Perkins, Assistant Secretary of Defense (Supply and Logistics), memorandum dated April 9, 1959 — 169
Machinery & Allied Products Institute, Charles W. Stewart, president, letter dated April 18, 1960, to Congressman Multer — 196
Scott, Denham S., Garrett Corp., letter dated June 23, 1960, to Congressman Multer — 212
Smith, Capt. T. P., Jr., Deputy Chief of Legislative Affairs (Acting), Office of Legislative Liaison, Office of the Secretary, Department of the Navy, letter dated April 27, 1960, with three enclosures, to Congressman Multer — 182
Southwest Products Co., K. V. Hackman, president, letter dated June 14, 1960, to Congressman Multer, with two enclosures — 211
Stewart, Charles W., president, Machinery & Allied Products Institute, letter dated April 18, 1960, to Congressman Multer — 196
Task Corp., Elmer F. Ward, president, letter dated April 9, 1960, to Congressman Multer — 209
Tektronix, Inc., W. B. Webber, vice president, letter dated April 14, 1960, with brief summary enclosed, to the Subcommittee on Small Business and Government Procurement, Select Committee on Small Business — 204
Thurman, Maj. Gen. William T., Assistant for Production Programing, Deputy Chief of Staff, Materiel (for the Chief of Staff), Department of the Air Force, letter dated May 3, 1960, with five enclosures, to Congressman Multer — 187
Ward, Elmer F., president, Task Corp., letter dated April 9, 1960, to Congressman Multer — 209
Webber, W. B., vice president, Tektronix, Inc., letter dated April 14, 1960, with brief summary enclosed, to the Subcommittee on Small Business and Government Procurement, Select Committee on Small Business — 204

# PROPRIETARY RIGHTS AND DATA

TUESDAY, MARCH 29, 1960

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE NO. 2 ON SMALL BUSINESS AND
GOVERNMENT PROCUREMENT OF THE SELECT
COMMITTEE ON SMALL BUSINESS,
*Washington, D.C.*

The subcommittee met, pursuant to call, at 10 a.m. in room 100–B, George Washington Inn, Washington, D.C., Hon. Abraham J. Multer (chairman of the subcommittee) presiding.

Present: Representatives Multer, Yates, Smith of California, Robison, and McCulloch.

Also present: Irving Maness, subcommittee counsel; Katherine C. Blackburn, research analyst; Marie M. Stewart, clerk; and Victor P. Dalmas, adviser to the minority members.

Mr. MULTER. The committee will please be in order.

The Subcommittee on Small Business and Government Procurement is commencing hearings today on the problem of proprietary rights and data and its effect on small business. These hearings will be held today, tomorrow, and Thursday, March 29, 30, and 31, 1960, beginning at 10 a.m. each day.

In addition to myself as chairman, the members of this committee are: Hon. Sidney R. Yates, Hon. Tom Steed, Hon. H. Allen Smith, and Hon. Howard W. Robison.

Recurring complaints to the committee have indicated that small business concerns under subcontract to a prime contractor or on direct procurement with the Department of Defense are required to submit either to the prime contractor or to the Department of Defense complete proprietary data on products or techniques which they have designed and developed with their own resources. These small business concerns allege that they are required to supply information to the prime contractors or to the Government which would disclose invaluable privately owned technological data, as well as trade secrets.

It has been further alleged in the complaints of the small business concerns that the military services regularly require the delivery of both types of technological data under Government contracts, and that subsequently this data is made available to other bidders and contractors.

It is the plan of the subcommittee to take testimony this morning from small business concerns which have filed their complaints with the committee, and thereafter receive the responses from the services involved.

Tomorrow and Thursday we will hear testimony from other witnesses familiar with the problem of proprietary rights. On Thursday, the Honorable Perkins McGuire, Assistant Secretary of Defense (Supply and Logistics), and the Honorable Philip McCallum, Administrator of the Small Business Administration, are scheduled to testify on the Armed Services Procurement Regulation, as it refers to the problem and its effect on small business.

The term "proprietary data" in and of itself is difficult to define because of the looseness of the definition and flexibility of interpretation.

A manufacturing company's proprietary know-how is among its most valuable assets. The term "proprietary data" describes confidential manufacturing techniques, engineering and production know-how, drawings, secret processes, et cetera. Such information is not patented nor copyrighted and in many cases is not susceptible of patenting or copyrighting.

Typical examples of alleged proprietary data include manufacturing drawings, alloying, material finishing, secret production, layout and tooling, manufacturing techniques, and dimensional specifications. The loss of such proprietary data could very well serve to destroy the company's competitive position.

There are, of course, instances wherein such technical data is necessary to the operation and maintenance of a product which the manufacturer ordinarily provides to his customers as a matter of course.

There appears to be no objection to furnishing information necessary for maintenance and operation. The area of dispute is in the delivering of manufacturing data to the Government whereby the Government contractor subjects himself to the gravest possible consequences caused by making trade secrets available to competitors.

There are important problems involved regarding the national defense, such as broadening the mobilization base, the possibility of discouragement of individual research and development by industry in Government contract work, and the taking without due compensation of manufacturer's proprietary data developed at great expense and over long periods of time.

There also exists the ever-continuing struggle between the proponents of advertised and negotiated procurement, and the problem of guaranteeing a fair share of the procurement for national defense to small business.

Merely identifying these questions indicates the seriousness of the issues involved as they affect both Government and industry. We must give full recognition to the Government's interest. The Government has a legitimate and most proper concern with the dispersal of military production involving the creation of secondary sources of supply. There is, of course, no dispute and there can be no dispute as to the Government's right to technological data developed under Government-financed research and development contracts, the ultimate objective of which was the production of the data.

Also, there should be no dispute as to making available the technological data that is directly related to repair and replacement activities.

This committee has had the problem presented to it on many occasions. In its final report for the 85th Congress, the committee stated:

> Proprietary rights pose a problem about which the committee has had a volume of complaints as large as those relating to almost any other current issue. It is recognized as a fundamental of our free enterprise system that in many cases small firms owe their existence to their own development and exploitation of original processes—chemical composition of materials, tooling, et cetera. Without adequate forms of protection to the resourcefulness and ingenuity of small firms, it is apparent that the wellspring of future enterprise would dry up and disappear.
>
> This is a most serious problem for small firms for the obvious reason that small firms generally develop less complex items, and it is easier to copy their discoveries. Moreover, there are more potential competitors to whom these ideas can be distributed.
>
> The subcommittee is happy to learn that the Assistant Secretary of Defense for Supply and Logistics has announced that revisions are being made in the procurement regulations which will provide protection for the proprietary rights of inventive defense producers. This is a step in the right direction and we will be most interested in the implementation of these revisions.

In April 1957, the Department of Defense issued the first statement of policy and procedure on the subject. Apparently this first attempt for regulatory language was not a complete success. The regulation, therefore, was extensively revised in 1958.

The complaints received by the committee arise out of the interpretation, administration, and the defining of the terms of these new revised regulations. The new revision appears as section IX, part 2, of the armed services procurement regulations.

The committee hopes to develop the complete picture at these hearings.

If there is need for the revision of the regulation, I am sure the department concerned will act, after the testimony has been reproduced and carefully studied; they will take these necessary steps.

If you need further implementation, I am sure they will do that.

On the other hand, I am sure that no one need feel the fear of presenting their complaints here, because some agency of the Government may seek to take reprisals against them.

I know from past experience, and I can assure you on behalf of each of the Government agencies involved, that you may talk freely and give your testimony without fear of any reprisal because you may point the finger at somebody in the Government or in some department.

The department heads are just as anxious as this committee to clear up any situation that needs clearing up.

Congressman Smith, would you like to add anything to what I have said?

## STATEMENT OF HON. H. ALLEN SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. SMITH. Thank you, Mr. Chairman, for this opportunity to express my appreciation to you for scheduling these hearings.

I also wish to express my appreciation for the splendid cooperation of the members of the subcommittee and its staff.

As you know, I have the honor to represent a district which contains within its borders an appreciable number of small business concerns engaged in projects affecting our national defense. In my opinion, I believe these are units of industry vital to the defense of our country.

Since my election to the U.S. Congress I have had many opportunities to evaluate the position of small business in the defense plant segment of our industrial complex. Based on past experience, I was somewhat amazed to learn firsthand that the incentive and inventiveness of our smaller concerns were being dehydrated or evaporated by regulation.

Because of the geographical location of so many plants, either in or contiguous to the district which I represent in the State of California, and because of many complaints particularly about proprietary rights of small concerns, I addressed a letter to the Assistant Secretary of Defense for Supply and Logistics, Hon. Perkins McGuire. Subsequently I had conferences with Mr. McGuire, accompanied by representatives of vitally affected defense contractors in my district.

I had hoped that, as a result of these conferences, one of the most troublesome regulations, namely: ASPR IX (2) had been satisfactorily worked out, that is, satisfactory to the Department of Defense and satisfactory to industry.

However, the revised language of June 30, 1959, has not proven satisfactory, which is the main reason we are here today.

These hearings, I sincerely trust, will contribute to the clarification of ASPR IX (2) in the very near future, and will assist in developing a revised regulation which will adequately protect the interests of the U.S. Government, and be fair to industry.

We are not here to quarrel or bicker with our Government. We are here to seek a remedy for a situation which we believe to be inimical to the best interests of our Government and perhaps to our national defense and security. I sincerely hope and trust that whatever occurs in these hearings and in future hearings on the same subject will be on the highest possible plane.

I hope that we will not engage in arguments as to the merits of advertised-bid or negotiated methods of procurement. Over the years the Congress of the United States has declared as its basic procurement policy that—

> all purchases and contracts for supplies and services shall be made by advertising * * * except—

Both the Armed Services Procurement Act, Public Law 413, 80th Congress, and the Federal Property and Administrative Services Act, Public Law 152, 81st Congress, make certain exceptions which permit negotiation to take place in awards for goods and services. That is law. That is the basic policy of the Congress.

In fact, it is and has been the basic policy of the executive departments of the Government. You will find this policy also espoused by all our States, counties, and municipalities.

Therefore, let us be realistic and not attack a policy which, in the procurement of goods and services, is precise, affords full public view, and seems to be necessary to the basic integrity of our public servants, and necessary to the welfare of our system of government.

Insofar as negotiated procurement is concerned, I simply want to say that when negotiation occurs the record shows that it has always been the intent of Congress that such negotiation be conducted on top of the table—in other words, "competitive negotiation."

As indicated above, we recognize that the security of our Nation is paramount. However, our Government, if it is to endure, must always make certain its employees deal justly and fairly with its private citizens. Any person who supplies an article or a service to the U.S. Government, for any purpose whatsoever, should be justly compensated. This, I believe, is the essence of the problem now before us.

I trust that by the time our investigation is completed a solution will be found which will be fair to the Government and fair to Government suppliers on this troublesome and complex question of proprietary rights and data.

Thank you, Mr. Chairman.

Mr. MULTER. Thank you, Congressman Smith.

We are pleased and honored this morning by the attendance of Congressman McCulloch, who is the ranking minority member of the full committee, and ex officio member of each subcommittee, with the full right to attend and participate in all of our proceedings of all subcommittees.

Mr. McCulloch, would you like to say anything at this time?

Mr. MCCULLOCH. Thank you, Mr. Chairman; I have no comment at this time. And may I say that I may have to leave, because the Judiciary Committee is going into some important hearings in about half an hour.

Mr. MULTER. Mr. Robison?

Mr. ROBISON. Thank you, Mr. Chairman.

I would like to say only that I am grateful for the opportunity to be here. I am grateful to you for your cooperation in calling these hearings, and I would like to commend Congressman Smith for his fine statement, and to join therein.

Mr. MULTER. For the information of those here, the gentleman alongside of Congressman Robison is Mr. Parke Dalmas, minority adviser. On my right is counsel to the subcommittee, Mr. Irving Maness; and at the end of our table is our very distinguished and able aide, Katherine C. Blackburn; and the clerk of the committee, Marie Stewart, sitting in the audience.

I think, in order that anyone picking up the transcript of these hearings at a later time will be able to intelligently follow our hearings, if there is no objection, I will ask the reporter to make as part of our record, immediately following the statements at the opening of the hearing by Members of Congress, the regulation that we are addressing ourselves to, as revised on October 15, 1958.

(Data referred to follows:)

Revised 15 October 1958

## Part 2—Data and Copyrights

**9–200 Scope of Part.** This Part sets forth the Department of Defense policy, implementing instructions, and contract clauses with respect to acquisition and use of data and copyrights. The policy and procedures set forth in this Part apply to all data required to be delivered to the Government under a contract whether such data originates with the contractor or a subcontractor.

**9–201 Definitions.** For the purpose of this Part, the following terms have the meanings set forth below:

(a) "Data" means writings, sound recordings, pictorial reproductions, drawings, or other graphic representations and works of any similar nature whether or not copyrighted. The term does not include financial reports, cost analyses, and other information incidental to contract administration.

(b) "Proprietary data" means data providing information concerning the details of a contractor's secrets of manufacture, such as may be contained in but not limited to its manufacturing methods or processes, treatment and chemical composition of materials, plant layout and tooling, to the extent that such information is not disclosed by inspection or analysis of the product itself and to the extent that the contractor has protected such information from unrestricted use by others.

(c) "Other data" means all data other than "proprietary data" and includes:

(i) Operational data which provides information suitable among other things for instruction, operation, maintenance, evaluation or testing; and

(ii) Descriptive data which provides descriptive or design drawings or descriptive material in the nature of design specifications which, although not including any "proprietary data," may nevertheless be adequate to permit manufacture by other competent firms.

(d) "Standard commercial items" means supplies or services which normally are or have been sold or offered to the public commercially by any supplier.

Issued 15 October 1958

**9–202 Acquisition and Use of Data.**

*9–202.1 Acquisition of Data.*

(a) *General.* It is the policy of the Department of Defense to encourage inventiveness and to provide incentive therefor by honoring the "proprietary data" resulting from private developments and hence to limit demands for data to that which is essential for Government purposes. The activity responsible for initiating a purchase request, after consultation with the procurement activity whenever feasible, will carefully determine the use contemplated for the data to be acquired and will specify only such data as is determined to be necessary to satisfy such use. Generally it should not be necessary to obtain "proprietary data" to satisfy Government requirements. The acquisition of data from a subcontractor shall be governed by the nature and circumstances of the subcontract, it being the intent of the Department of Defense that in obtaining data originating with subcontractors, the contractor shall, insofar as carrying out its obligations under a prime contract is concerned, be guided by the same policies and procedures as if the subcontractor were contracting directly with the Government and should not request unlimited rights in "proprietary data" where such rights are not required by the Government under the prime contract.

(b) *Supply Contracts and Subcontracts Thereunder.* In advertised contracts and in contracts and subcontracts for standard commercial items, "proprietary data" shall not be requested. "Proprietary data" will be obtained for the Government under other supply contracts and subcontracts thereunder only when a clear Government need for such data is established and in such event the requirement for "proprietary data" will be specified in the contract Schedule (see the clause in ASPR 9–203.2). When "proprietary data" is obtained under supply contracts, there shall be a specific negotiation for such data and the contractual requirement shall be listed as a separate contract item.

(c) *Contracts for Experimental, Developmental, or Research Work and Subcontracts Thereunder.* In a contract which has as one of its principal purposes experimental, developmental, or research work and also calls for models of equipment or practical processes, the contractor shall be required to furnish to the Government for the price of the work all data resulting directly from performance of the contract, whether or not it would otherwise be "proprietary data." In addition, the contractor shall be required to furnish all data necessary to enable reproduction or, where appropriate, manufacture of the equipment or performance of the process which is developed, and the Schedule of the contract shall set forth the data required, subject to the exceptions set forth below:

Issued 15 October 1958

(i) Such data shall not be required for standard commercial items to be furnished under the contract and to be incorporated as component parts in or to be used with the product or process being developed if in lieu thereof the contractor shall furnish identification of source and characteristics (including performance specifications, when necessary) sufficient to enable the Government to practice the process or to procure the part or an adequate substitute; and

(ii) "Proprietary data" shall not be required for other items, including minor modifications thereof, which were developed at private expense and previously sold or offered for sale and which are to be incorporated as component parts in or to be used with the product or process being developed, if in lieu thereof the contractor shall identify such other items and that "proprietary data" pertaining thereto which is necessary to enable reproduction or manufacture of the item or performance of the process.

Where the contractor asserts and it is determined in the negotiation preceding the execution of the contract that the contractor has previously developed "proprietary data," other than that described in (ii) above, that such data will be used in the product or process developed under the contract, and that such product cannot readily be manufactured or the process practiced without the use of such previously developed "proprietary data," a suitable price (or provision therefor) may be negotiated *provided* that the contractor requests payment for such data, and the Government does not have rights to such data (other than the "Limited Rights" provided for by the paragraph of ASPR 9–203.3).

*9–202.2 Use of Data.*

(a) *Other Data.* When data other than "proprietary data" is obtained, it shall be obtained without any limitation on its use by the Government.

(b) *"Proprietary Data."*

(1) *Supply Contracts.* When "proprietary data" is obtained by negotiation under a supply contract, in accordance with ASPR 9–202.1 (b), the purposes for obtaining it will govern its use. If it is obtained for the purpose of enabling the Government to establish additional sources of supply, it shall be obtained without limitation as to its use; in such case the contract clause in ASPR 9–203.1 and 9–203.2 shall be included in the contract and the requirement for the "proprietary data" will be specified in the contract Schedule. However, where it has been determined to be necessary to obtain "proprietary data" for some limited purpose, such as emergency manufacture by the Government, such data may be obtained subject to limitation as to its use; in such case the contract clause in ASPR 9–203.1, 9–203.2 and 9–203.3 shall be included in the contract and the contract Schedule shall suitably identify the data which shall be subject to limited use.

Issued 15 October 1958

(2) *Contracts for Experimental, Developmental, or Research Work.* When "proprietary data" is obtained under a contract having as one of its principal purposes experimental, developmental, or research work, in accordance with ASPR 9–202.1 (c), it shall be obtained without limitation as to its use; in such case the contract clause in ASPR 9–203.1 and 9–203.4 shall be included in the contract.

*9–202.3 Multiple Sources of Supplies.* The Government's interest in establishing multiple sources for supplies and services arises when it is necessary to (i) insure fulfillment of its current and mobilization requirements or (ii) permit competition for defense procurement to avoid unreasonable prices. The policies in this Part provide one means for accomplishing this objective and are particularly effective where data, other than "proprietary data," acquired by the Government, is useable, without more, to obtain multiple sources. Where the use of "proprietary data" is necessary for the production of an item developed at private expense, it is the policy of the Department of Defense to honor the proprietary nature of such data since it is recognized that it is in the Government's interest to foster private development of items having military usefulness. Accordingly, "proprietary data," not otherwise obtained pursuant to the policy set out in ASPR 9–202.1 (c), will be obtained by the Government for the purpose of establishing multiple sources only where such sources cannot otherwise be established. This should occur only in isolated cases as necessary to achieve the objectives in (i) and (ii) above. In preference to having the Government obtain "proprietary data" for the purpose of creating multiple sources, it is the policy to achieve these objectives to the extent possible through one of the following procedures:

(i) The acquisition by the Government of "proprietary data" developed at private expense may be unnecessary where the primary source is willing to establish other sources by direct contractor licensing arrangements without Government participation. Where complex technical equipment is involved and the establishment of a satisfactory second source will require, in addition to data, technical assistance from the primary source or Government facilities or other unusual assistance, Government participation in any licensing and technical assistance arrangements between contractors may be necessary to protect the Government's interest with respect to such factors, among others, as (A) investment in facilities, (B) competency of source, (C) timing of establishment of second sources, and (D) allocation of orders among sources.

Revised 9 January 1959

(ii) The acquisition of "proprietary data" developed at private expense may be avoided in many cases by providing for the development of suitable substitutes for such sole source items through the use of performance specifications.

No single method can be prescribed for meeting the second source problem; each situation must be handled on its own merits.

*9–202.4 Delivery of Data for Use in Foreign Countries.* Where the Department of Defense proposes to make available any data in its possession for use in a foreign country, it shall, to the maximum extent practicable, give reasonable notice thereof to the contractor who furnished the data, *provided* that the contractor has previously requested such notice in order to protect its foreign patent position.

*9–202.5 Copyrights.* It is the policy of the Department of Defense generally to reserve only a license under copyright on any copyrighted data, leaving the contractor free to copyright the material. With respect to certain data produced, written, or compiled for the Department of Defense, such as (i) motion pictures and works relating thereto, and (ii) histories and other works relating to operation of the Department of Defense, the Government may desire that no adverse claim of copyright be established in such data, and that the Government's right to reproduce and use such data shall be unlimited.

*9–202.6 Data Furnished on a Restricted Basis in Support of a Proposal.* When an offeror has submitted data on a restricted basis in accordance with ASPR 3–109 in response to a request for a proposal, and it is proposed to award the contract to such offeror, the contracting officer shall ascertain whether it is desired to acquire rights to use all or part of the data furnished with the proposal. If it is desired to acquire such rights, the contracting officer shall determine in accordance with ASPR 9–201 whether such data is proprietary in nature, and shall negotiate with the offeror in accordance with the policy prescribed in ASPR 9–202 for the acquisition and use of such data. If the offeror agrees to furnish such data under the contract, the appropriate clause of ASPR 9–203 shall be inserted in the contract, and the Schedule shall identify the data to be covered by such clause.

**9–203 Contract Clauses—General.** In every contract in which data is specified to be delivered, insert the clause of ASPR 9–203.1, except that this clause shall not be used in contracts (i) for the acquisition of existing works in accordance with ASPR 9–205, (ii) wherein the clause of ASPR 9–204 is used in accordance with the provisions of ASPR 9–204.2 and 9–204.3, (iii) utilizing DD Forms 1261 and 1270 or DD Form 1155, unless the contract is solely for the procurement of data, or (iv) to be performed outside the United States, its Territories, or possessions, or Puerto Rico where the clause of ASPR 9–206 applies. The additional paragraphs of ASPR 9–203.2, 9–203.3, and 9–203.4 will be added to the clause of ASPR 9–203.1 in accordance with ASPR 9–202 and the instructions contained in ASPR 9–203.2, 9–203.3, and 9–203.4

Issued 15 October 1958

9–203.1 *Basic Data Clause.*

**DATA.**

(a) The term "Subject Data" as used herein includes writings, sound recordings, pictorial reproductions, drawings or other graphical representations, and works of any similar nature (whether or not copyrighted) which are specified to be delivered under this contract. The term does not include financial reports, cost analyses, and other information incidental to contract administration.

(b) The Contractor agrees to and does hereby grant to the Government, and to its officers, agents, and employees acting within the scope of their official duties, a royalty-free, nonexclusive and irrevocable license throughout the world for Government purposes to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others so to do, all Subject Data now or hereafter covered by copyright; *provided*, that with respect to the Subject Data now or hereafter covered by copyright and not originated in the performance of this contract, such license shall be only to the extent that the Contractor, its employees, or any individual or concern specifically employed or assigned by the Contractor to originate and prepare such Data under this contract, now has, or prior to completion or final settlement of this contract may acquire, the right to grant such license without becoming liable to pay compensation to others solely because of such grant.

(c) The Contractor shall exert all reasonable effort to advise the Contracting Officer, at the time of delivery of the Subject Data furnished under this contract, (i) of all invasions of the right of privacy contained therein and (ii) of all portions of such Data copied from work not composed or produced in the performance of this contract and not licensed under this clause.

(d) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of copyright infringement received by the Contractor with respect to all Subject Data delivered under this contract.

(e) Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

(f) Subject to the proviso of (b) above and unless otherwise limited below, the Government may duplicate, use, and disclose in any manner and for any purpose whatsoever, and have others so do, all Subject Data delivered under this contract.

[Contract clause continued on next page]

**Issued 15 October 1958**

(g) Notwithstanding any provisions of this contract concerning inspection and acceptance, the Government shall have the right at any time to modify, remove, obliterate or ignore any marking not authorized by the terms of this contract on any piece of Subject Data furnished under this contract.

*9–203.2 Provision for Addition to Basic Data Clause for Use in Supply Contracts.* The paragraph set forth below shall be added to the clause of ASPR 9–203.1 in all supply contracts in which data is specified to be delivered. This paragraph shall not, however, be included in a contract having as one of its principal purposes experimental developmental, or research work.

(h) Notwithstanding any Tables or Specifications included or incorporated in the contract by reference, "proprietary data" need not be furnished unless suitably identified in the Schedule of the contract as being required. For the purpose of this clause, "proprietary data" means data providing information concerning the details of a Contractor's secrets of manufacture, such as may be contained in but not limited to its manufacturing methods or processes, treatment and chemical composition of materials, plant layout and tooling, to the extent that such information is not disclosed by inspection or analysis of the product itself and to the extent that the Contractor has protected such information from unrestricted use by others.

When "proprietary data" is to be obtained in accordance with ASPR 9–202.1(b) and the above paragraph is included in the contract, the Schedule of the contract will state the extent of the proprietary data to be furnished.

*9–203.3 Limited Rights Provision for Addition to Basic Data Clause.* The paragraph set forth below shall be added to the clause set forth in ASPR 9–203.1 and 9–203.2 in negotiated contracts for supplies calling for "proprietary data" which is to be obtained subject to limitations on its use as provided for in ASPR 9–202.2(b)(1) and the Schedule of the contract will state the extent of the "proprietary data" to be furnished subject to such limitations. This paragraph shall not be included in a contract having as one of its principal purposes experimental, developmental, or research work.

[Contract clause continued on next page]

**Revised 30 June 1959**

(i) That portion of the Subject Data delivered under this contract which is identified in the Schedule as being subject to limitations shall not be released outside the Government, nor be duplicated, used, or disclosed in whole or in part for procurement or manufacturing purposes (other than for manufacture required in connection with repair or overhaul where an item is not procurable commercially so as to enable the timely performance of the overhaul or repair work; *provided*, when Data is released by the Government to a Contractor for such purposes, the release shall be made subject to the limitation of this clause; *provided further*, such Data shall not be used for manufacture or procurement of spare parts for stocks), without permission of the Contractor, if the following legend is marked on each piece of Data so limited either in its entirety or only partially as to its content:

> Furnished under United States Government Contract No. ---------- and only those portions hereof which are marked (for example, by circling, underscoring or otherwise) and indicated as being subject to this legend shall not be released outside the Government (except to foreign governments, subject to these same limitations), nor be disclosed, used, or duplicated, for procurement or manufacturing purposes, except as otherwise authorized by contract, without the permission of ---------- This legend shall be marked on any reproduction hereof in whole or in part.
>
> *Provided*, that such Data may be delivered to foreign governments as the national interest of the United States may require, subject to the limitations specified in this paragraph. The Contractor shall not impose limitations on the use of any piece of Data, or any portion thereof, which the Contractor has previously delivered to the Government without limitation.

*9–203.4 Provision for Addition to Basic Data Clause for Use in Contracts for Experimental, Developmental, or Research Work.* The paragraph set forth below shall be added to the clause of ASPR 9–203.1 in every contract having as one of its principal purposes experimental, developmental, or research work and the Schedule of the contract will specify the data to be required in accordance with ASPR 9–202.1(c).

(h) Data need not be furnished for standard commercial items or services which are normally or have been sold or offered to the public commercially by any supplier and which are incorporated as component parts in or to be used with the product or process being developed if in lieu thereof identification of source and characteristics (including performance specifications, when necessary) sufficient to enable the Government to procure the part or an adequate substitute, are furnished; and further, proprietary data need not be furnished for other items which were developed at private expense and previously sold or offered for sale, including minor modifications thereof, which are incorporated as component parts in or to be used with the product or process being developed, if in lieu thereof the Contractor shall identify such other items and that "proprietary data" pertaining thereto which is necessary to enable reproduction or manufacture of the item or performance of the process.

**[Contract clause continued on next page]**

Issued 15 October 1958

For the purpose of this clause "proprietary data" means data providing information concerning the details of a Contractor's secrets of manufacture, such as may be contained in but not limited to its manufacturing methods or processes, treatment and chemical composition of materials, plant layout and tooling, to the extent that such information is not disclosed by inspection or analysis of the product itself and to the extent that the Contractor has protected such information from unrestricted use by others.

**9–204 Contract Clauses—Special.**

*9–204.1 Limitation on Government's Right of Publication for Sale to the General Public.* The paragraph set forth below may be added to the clause of ASPR 9–203.1 when, in contracts for research, the contracting officer determines in accordance with Departmental procedures that public dissemination of the work or certain designated parts of the work specified to be delivered under contract is in the best interest of the Government and would be facilitated by the Government relinquishing its right to publish for sale or to have others publish for sale for it. This paragraph shall not be used otherwise.

( ) If, after final settlement of this contract, and within the period designated in the Schedule* for the purpose of this paragraph ( ) or otherwise approved by the Contracting Officer, but in any event within a period no greater than 24 months, the Contractor publishes for sale any Subject Data which are (i) designated in the Schedule* as being subject to this paragraph ( ) and (ii) delivered under this contract, the Government agrees not to publish such Data for sale or authorize others so to do. This limitation on the Government's right to publish for sale any such Data so published by the Contractor shall continue as long as the Data are protected by copyright. As to all such Data not so published by the Contractor, this paragraph shall be of no force or effect.

*The word "Schedule" may be replaced by the words "Task Order," or other appropriate reference, in accordance with Departmental procedures.

*9–204.2 Production of Motion Pictures.* The clause set forth below is approved for use in contracts for the production of motion pictures with or without accompanying sound, and in all contracts for the preparation of motion picture scrips, musical compositions, sound tracks, translations, adaptations, and the like:

RIGHTS IN DATA

(a) The term "Subject Data" as used herein includes writings, sound recordings, pictorial reproductions, drawings or other graphical representations, and works of any similar nature (whether or not copyrighted) which are specified to be delivered under this contract. The term does not include financial reports, cost analyses, and other information incidental to contract administration.

[Contract clause continued on next page]

Issued 15 October 1958

(b) All Subject Data first produced in the performance of this contract shall be the sole property of the Government. The Contractor agrees not to assert any rights at common law or equity and not to establish any claim to statutory copyright in such Data. The Contractor shall not publish or reproduce such Data in whole or in part or in any manner or form, nor authorize others so to do, without the written consent of the Government until such time as the Government may have released such Data to the public.

(c) The Contractor agrees to grant and does hereby grant to the Government and to its officers, agents and employees acting within the scope of their official duties, a royalty-free, nonexclusive, and irrevocable license throughout the world (i) to publish, translate, reproduce, deliver, perform, use, and dispose of, in any manner, any and all Data not first produced or composed in the performance of this contract but which is incorporated in the work furnished under this contract; and (ii) to authorize others so to do.

(d) The Contractor shall indemnify and save and hold harmless the Government, its officers, agents and employees acting within the scope of their official duties against any liability, including costs and expenses, (i) for violation of proprietary rights, copyright or right of privacy, arising out of the publication, translation, reproduction, delivery, performance, use or disposition of any Data furnished under this contract, or (ii) based upon any libelous or other unlawful matter contained in such Data.

(e) Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

(f) Paragraphs (c) and (d) above are not applicable to material furnished to the Contractor by the Government and incorporated in the work furnished under the contract; *provided*, such incorporated material is indentified by the Contractor at the time of delivery of such work.

*9–204.3 Histories and Other Works.* The contract clause set forth in ASPR 9–204.2 is suggested for use in contracts for—

(i) histories of the respective Departments or services or units thereof;

(ii) works pertaining to recruiting, morale, training or career guidance;

(iii) surveys of Government establishments; and

(iv) works pertaining to the instruction or guidance of Government officers and employees in the discharge of their official duties.

**9–205 Contracts for Acquisition of Existing Works.**

*9–205.1 Off-the-Shelf Purchase of Books and Similar Items.* Notwithstanding the instructions of any other paragraphs in this Part, no contract clause contained in this Part need be included in contracts for the separate, sole procurement of data, other than motion pictures, in the exact form in which such material exists prior to the initiation of a request for purchase (such as the off-the-shelf purchases of existing products) unless the right to reproduce such data is an objective of the contract.

*9–205.2 Contracts for Existing Motion Pictures.* Contracts for the procurement of existing motion pictures or for the modification of existing motion pictures shall be made in accordance with Departmental procedures.

Issued 15 October 1958

**9–206 Contracts To Be Performed Outside the United States**

(a) Except as otherwise provided in ASPR 9–204.2, 9–204.3, or 9–205, the clause set forth below shall be included in all contracts under which (i) technical information including reports, drawings, blueprints or other data is specified to be delivered to the Government, and (ii) the work is to be performed outside the United States, its Territories, its possessions, or Puerto Rico, regardless of the place of delivery.

**TECHNICAL INFORMATION**

The Government may duplicate, use, and disclose in any manner for its Government purposes, including delivery to other governments for the furtherance of mutual defense of the United States Government and such other governments, all or any part of the technical information including reports, drawings, blueprints, and other data specified to be delivered by the Contractor to the Government under this contract.

(b) The above clause may be modified by substituting "the United States Government" for "Government"; however, when the contractor is a foreign government, the above clause shall be modified by substituting "the United States Government" for "Government" and by substituting the name of the foreign government for "Contractor."

Mr. MULTER. Now, I think the preliminaries are behind us and we are ready to get underway.

The list of witnesses will be followed as nearly as possible in the order in which they are set out, and we will work until 10 minutes to 12 today, and again tomorrow from 10 to 12, and hear tomorrow morning, I hope, those not heard today.

As I have already indicated, the Assistant Secretary of Defense and the Administrator of Small Business Administration will be heard Thursday morning.

In order to expedite our work, those witnesses who have lengthy statements, all of which have been submitted to us, may summarize them, rather than read them at length. We will make each entire statement a part of the record, if they so desire.

Of course, if any witness wants to read his whole statement, we will hear it.

I do want to be sure that in every instance where a statement is being made that the departments affected have copies thereof, so that they may study them and make appropriate answer when the time comes.

Our first witness will be Mr. Robert R. Lent.

Mr. Lent, will you identify yourself by giving us your residence address and your business affiliation?

## TESTIMONY OF ROBERT R. LENT, VICE PRESIDENT, RIGGS NUCLEONICS CORP., BURBANK, CALIF.

Mr. LENT. Thank you, Mr. Chairman, members of the committee, and staff. I am Robert Lent. I am vice president of Riggs Nucleonics Corp., Burbank, Calif. My home address is 1119 Las Lomas Avenue, Pacific Palisades, Calif.

In addition to my occupation, I am also chairman of the Government relations committee of the Strategic Industries Association, a group of 130 small business companies engaged primarily in the manufacture of proprietary technical equipment sold to prime contractors of the Department of Defense.

We are, therefore, representative of the group most directly affected by the policies, regulations, and administrative practices of the Department of Defense in its procurement of technical material.

I have with me this morning a number of member-company presidents and representatives whom I would like to introduce to the subcommittee:

Mr. Harvey Riggs, who is president of International Electronic Research Corp., Burbank, Calif., and, in addition to that, is president of the Strategic Industries Association.

Mr. Richard Hahn, who is president of the Airborne Research & Development Corp., Burbank, Calif.

Mr. Henry Marcheschi, assistant to the vice president, customer relations and contracts, Air Logistics, Inc., Pasadena, Calif.

Mr. Elmer Ward, president of Task Corp., Anaheim, Calif.

Not here, but will be appearing before the committee, is Mr. Dudley Wright, president of Endevco, Inc., Pasadena, Calif. And as an observer is William Schmidt, assistant to the president of Rosnan, Inc., Newport Beach, Calif.

And arriving sometime today will be Mr. Kenneth Hackman, president of Southwest Products, Inc., Arcadia, Calif.

Each of these gentlemen, with the exception of Mr. Riggs and Mr. Schmidt, respectfully request the opportunity to make a brief statement outlining his own company's experience in the matter now before you.

I will begin our presentation by an introductory summary of the current situation.

We must first recognize clearly that the defense of the United States and its allies in the free world is made possible only by the partnership between the American Military Establishment and private U.S. industry.

This team worked smoothly and effectively to win World War II and it must work with equal harmony if it is to prevent a third, and possibly a last, war.

However, during the past few years these two partners have engaged in an increasingly bitter quarrel that poses extremely grave consequences to freedom everywhere, unless their differences are resolved quickly.

The referee in this argument, and the only neutral party to which both can repair, is the Congress of the United States, and it is our certainty that this subcommittee and the whole committee, after conscientious deliberation, will make prompt and energetic effort to guide the two parties back into harmonious concentration on the really serious scientific problems of the space age.

The heart of the difficulty is the existing Armed Services Procurement Regulations, specifically section 9, part 2, and their interpretation by Department of Defense contracting authorities.

My associates will cite specific examples of absolute usurpation and dissipation of vital, legal, proprietary rights in inventions and trade secrets by overzealous, and often misguided, procurement officials. The only remedy to the serious economic consequences of such liberal interpretations is a rewriting of the regulations with language of precision and clarity.

The current armed services procurement regulations reflect the concern of the Congress with the fairness of the procurement process, as between the Government and its contractors, but is silent as to its effectiveness in getting the job done. This zeal for equity in the procurement process has produced gross unfairness within the contractor fraternity to the end that the inventive are being robbed to pay the mere producers of other people's ideas.

Thus, in actual practice, the current regulations force the inventive contractor into the business of designing and developing products for other people to manufacture, an inequity that cannot long endure.

Acting under the law and present regulations, the Department of Defense is literally playing Robin Hood by obtaining from all its contractors complete and detailed information on the manufacturing processes of everything it buys, and then redistributing these valuable data to those who do not have it, under the guise of competitive bidding.

The only solution to this inequity is the introduction of clear language in the regulations expressing the right of the inventive to the

fruits of his inventiveness, a concept established by our Constitution and long well-settled in common law.

Proprietary rights, as distinguished from patent rights, clearly mean the way in which something is made. These are the essential rights in any product. The form, appearance, and mechanism of any device can be determined by those with skill by simply buying one and taking it apart.

But the production of the device in large quantities with consistent quality at a profit hinges wholly on know-how acquired, usually painfully and at great expense, through long experience. This is the "trade secret" that is the proprietary right of the manufacturer and that he must zealously guard if he is to prosper.

Now, in order to place the production of the device with some other manufacturer, the Government has learned that its dimensions are not enough and, in turn, has demanded the secret "know-how" as an integral part of the purchase price of the product.

This is not only morally and legally wrong, but produces two inevitable practical results: It dissuades the owner of the "know-how" from offering his product to the Government; and it gives to the inexperienced a whole reservoir of knowledge to which he is hardly entitled as the reward for entering some low figures on a bid form.

The result is equipment of minimum acceptability produced by inexperienced manufacturers disclaiming any responsibility for its reliability in service. This is hardly conducive to rapid acceleration of our technological race into space.

The Government, clearly knowledgeable in this area, has attempted to make its procurement regulations satisfy everybody: the Congress, the recipient of its free know-how, and the creator of that know-how.

It has codified proprietary rights and its use of them in a variety of ways through various definitions. But, in its attempts to stretch the language across all possible situations, it has transgressed reason in many concepts. It has defended its usurpation of trade secrets by excluding from proprietary rights all those things that can be determined by detailed examination of a large number of the product.

This "reverse" or "Chinese" engineering idea is merely a play on words, since nobody ever literally performs such tedious, costly operations.

It has divided proprietary data into a category needed for actual manufacture of the product, and another needed only for its maintenance and overhaul; clearly making necessary the preparation of two sets of manufacturer's drawings—a costly and pointless procedure.

It even further divides these data into a group which it claims the free right to redistribute as it pleases, and a second group it promises to keep locked safely in a vault and withheld from competitors. It then hastens to add, however, that although it promises to keep these materials inviolate, it really has legal right to use them for "Government purposes" whenever it so desires.

Thus, we are met with just plain silliness in this very grave matter of most serious implication to our defense.

The last, and most important, conflict in these vital matters, is the provision in the regulation for Government purchase of proprietary rights as a separate and distinct item in the contract. This provision

reassures everybody in print, but nobody in practice, for it is simply not being employed.

Government procurement in the vast majority of cases—about 80 percent, according to the Department of Defense—is conducted by a process called "negotiation," a word with a nice ring to it, but one, unfortunately, grossly misunderstood by laymen. The contractor has about as much negotiating power with the Government as the citizen has before the judge in a traffic court.

While engaged in negotiations the contractor is seeking to make a sale, not a leisurely treaty with a foreign government designed to make everybody happy. Therefore, his purpose is to get the best deal he can from an absolutely autonomous, and often arbitrary, "peer."

While struggling to obtain the largest quantity at the highest price—a most complex, time-taking process—there is little time or incentive to complicate the procedure by injecting the concept of substantial additional money for proprietary rights and data in the same contract.

Those with experience in this attempt have run directly into an unresolvable conflict of opinion as to the value of these proprietary rights.

To the manufacturer they represent many future years of profitable business volume and, therefore, extremely valuable. To the contracting officer they represent merely some additional sets of drawings at, perhaps, $50 a sheet.

The disparity between the two parties is invariably so hopeless as to render impractical even introduction of the subject into procurement negotiations.

Our main argument is that our proprietary rights are not being recognized or honored, nor are they paid for if, by some remote chance, a specific bit of know-how is interpreted under the narrow definitions as being proprietary.

The Defense Department, on the other hand, argues that it is entitled to anything and everything it pays for, which includes detailed and comprehensive know-how data.

On the basis of this reasoning, a housewife who buys a vacuum cleaner should be entitled, as a condition of purchase, to the design criteria, manufacture and assembly techniques, bill of materials, production specification, and the irrevocable right to reproduce the item for any purpose which she determines to be in her best interest.

Such an analogy is, of course, silly; but so, too, is the Department of Defense's interpretation of its rights in proprietary data.

It is this specific issue that we ask resolution by the Congress.

The question has been made complex and serious by charges and countercharges from both sides; but it is our conviction that it can be solved with simplicity and expediency if judgment is substituted for emotion.

The Strategic Industries Association recommends that Congress request the Department of Defense to immediately appoint a joint military-industry committee to rewrite section IX, part 2, of ASPR with language of precision and clarity, which is consistent with common law and established industry practice.

That concludes my comment, Mr. Chairman. If there are no questions. I should like to turn the testimony over to Mr. Hahn, who is president of Airborne Research & Development Corp., Sun Valley, Calif.

Mr. MULTER. Mr. Lent, you have made a very broad charge which, if true, certainly requires considerable attention; but I cannot let you go without asking you whether or not you personally, since in some of these statements I do note in the opening you say that you will call or suggest the calling of other persons who will give us details of these charges; but because of the very positive statements in your own presentation about these things, I want to know whether you personally know of any specific instances, and can give us the evidence of the specific instances that will back up your charge, or will we rely on those whom you intend to call to give us the specifics?

Mr. LENT. Each one of the witnesses, who are members of this Strategic Industries Association, will give you specific examples in which the invitation to bid number, the date, and the procurement procedure that took place under those, will be outlined explicitly to you.

In direct answer to your question: Yes, I have experienced a great deal of difficulty in this respect. I could ad lib for you many of the cases that have happened, but I think that perhaps it might be more effective for the committee to have the specifics that will be outlined by our other witnesses.

Mr. MULTER. Except that you want your statement to be considered more or less of a summary or conclusion based upon the evidence yet to come.

The committee certainly would like to have you submit to us, if you are not prepared to do it now, at least submit to us in writing the specifics of those instances that you personally know about, or that your company knows about, that would sustain the charge that has been made.

Mr. LENT. I will be delighted to do so.

For instance, I can outline one to you that happened to me while representing Reaction Motors, Inc., of Denville, N.J. This was in early 1956. Reaction Motors had done quite a bit of work in acetylenic and boron chemistry.

Also, the parent corporation, Olin Mathieson, had been doing quite a bit of work on liquid boron chemistry for use in high energy propellants.

As a result of investigation by our chemistry department, we came upon information which indicated it was quite possible, through the exploitation of boron chemistry, to develop a high energy solid propellant, which would have three to four times the burning rate of present-day propellants, and polymer characteristics that would provide higher thrust for solid rocket engines.

An unsolicited proposal was prepared, in which the entire approach to this problem was outlined. It was sent to the Air Force, and subsequently ended up at Wright Field.

Upon receipt, Wright Field used consultants from the outside to evaluate this proposal.

One could only conclude at that time that they did not have people available at the installation who were capable of understanding the chemical approach to the problem. Subsequent to their evaluation, they took the proprietary data, or the contents of this proposal, rewrote it into an invitation-for-bid form; without giving recognition to the source of the information; without giving credit to the company who had done the creative thinking, and submitted it to competitive companies and requested their approach to the same problem.

This was an obvious violation of a trust that we had placed in them, so we made a complaint through the headquarters of the Air Force Research and Development Group in Washington. Shortly thereafter Wright Field pulled back their invitation to bid which had been sent to our competitors, and the contract was awarded, as a preliminary study, to Reaction Motors.

This was a specific example, where we, in our desire to serve the Government, had submitted to them our best thinking on a given problem, and had that thinking then divulged to our competitors. All they had to do was to give to our competitors a certain indication of which way we were going; and the whole thing was exposed.

That is one instance, Mr. Chairman, where I have had personal experience.

In subsequent years, I have had other situations, such as when I was with Statham Instruments, Inc., Los Angeles, Calif. Statham Instruments is headed by a man who invented and carries a patent on the unbonded strain gage transducer. The transducers are used to sense mechanical action and to convert it to electrical energy, which is a method of measuring forces that are taking place.

All of these products had been developed by this company; they had never accepted a research and development contract from anyone, including the Government.

We had spent our own money to develop these products.

Repetitively, I had to fight off the military and prime contractors who demanded proprietary knowledge, secret know-how, and even reproduction rights on a product that I was selling to them at a fixed price, off of the shelf, which was covered by a patent.

Now, because of our negotiating position, we were able to fend off this encroachment. However, other companies, who were in a less-favorable position, have not been able to do this.

These are two examples, Mr. Chairman.

Mr. MULTER. Very good, sir.

At this point I will ask the reporter to make as part of the record the membership roster as of January 1, 1960, of the Strategic Industries Association, which is represented here today by Mr. Lent.

(Roster referred to follows:)

*Membership roster, Strategic Industries Association, Los Angeles, Calif., Jan. 1, 1960*

| Company | Address and telephone No. | Company representative, principal-alternates |
|---|---|---|
| Aero Supply Manufacturing Co., Inc. | 611 West Main St., Corry, Pa | E. F. Pain, vice president, sales and engineering; C. T. Keith, vice president, manufacturing. |
| A.M.A. Machine Works | 148 South Main St., Orange, Calif., KE 8-9619. | Adam M. Follman, president; Douglas Lindow, superintendent. |
| Aerol Co., Inc | 3235 San Fernando Rd., Los Angeles, Calif. | H. D. Neal, president; B. Bowman, vice president, sales. |
| Airaterra-Roylyn, Inc | 620 Paula Ave., Glendale, Calif., CH 5-8521. | D. L. Leavitt, president, Airaterra; W. B. Lynch, president, Roylyn. |
| Airborne Research & Development Corp. | 7530 San Fernando Rd., Sun Valley, Calif., TR 7-9647. | Richard H. Hahn, president; Howard V. French, secretary-treasurer. |
| Air Logistics Corp | 3600 Foothill Blvd., Pasadena, Calif., SY 6-7191, MU 1-8105. | J. F. Schirtzinger, president; H. R. "Dick" Smith. |
| Robert S. Albritton | 941 Westwood Blvd., Los Angeles, Calif., GR 9-3773, BR 2-3733. | Robert S. Albritton. |
| Allen, Simonds, Gates & Co | 810 South Spring St., Los Angeles, Calif., MA 7-0457. | Herb Allen, partner; Albert C. Simonds, partner. |
| Allesandro Automatic | 2938 Allesandro St., Los Angeles, Calif., NO 3-8253. | Robert F. Howard, president; Nile D. Adams, secretary-treasurer. |
| Altamil Corp | 225 Oregon St., El Segundo, Calif., OR 8-5161. | A. Schollerman, president. |
| Anachrome Corp | 10647 Garfield Ave., South Gate, Calif., SP 3-4140. | Joe Trankla, director of sales; Gordon Jenkins, president. |
| Anadite, Inc | 10630 Sessler St., South Gate, Calif., SP 3-4210. | Roy E. Klotz, vice president; Gordon W. Jenkins, general manager. |
| Associated Spot Welders | 722 East 12th St., Los Angeles, Calif., RI 7-9417. | Fred Edward; Albert J. Lyons; D. A. "Bud" Prior. |
| Astra Technical Instrument Corp | 3014 South Halladay St., Santa Ana, Calif., KI 5-9477. | William MacPherson, president; Jack Probst, sales manager. |
| Raymond Atchley, Inc | 2340 Sawtelle Blvd., Los Angeles, Calif., GR 9-8626. | Raymond D. Atchley, president; John B. Pegram, chief engineer. |
| Auto-Control Laboratories, Inc | 333 South Hindry Ave., Inglewood, Calif., OR 8-4934. | Joseph T. Abdo, president; Kelly P. Abdo, secretary-treasurer. |
| Beattie-Coleman, Inc | 1000 North Olive, Anaheim, Calif., PR 4-4503. | James Beattie, president; Jack Wilcox, vice president, sales. |
| The Bell Press | 1624 East 1st St., Los Angeles, Calif., AN 3-6918. | James M. Phillips, owner. |
| Billmar, Inc | 1200 San Fernando Rd., Los Angeles, Calif., CA 5-4128. | Marshall Yoakum, president. |
| Bone Engineering | 701 West Broadway, Glendale, Calif., CH 5-2638. | William L. Worthen, president; Al Jesche. |
| Bourns, Inc | 6135 Magnolia Ave., Riverside, Calif., OV 4-1700. | A. J. Unetic, division manager; R. A. Beck, treasurer. |
| California Bank | 505 North Brand Blvd., Glendale, Calif., CI 3-2111. | Ben Chaffey, vice president and manager; R. H. Thorburn, assistant vice president. |
| California-Doran Heat Treating Co | 2830 East Washington Blvd., Los Angeles, Calif., AN 1-2121. | Robert C. Sherwood, vice president; Robert P. Archer, president. |
| Cee Jay Machine | 8524 Tugunga Ave., Sun Valley, Calif., CH 7-4391. | Charles J. Gaide, owner. |
| Chemical Contour Corp | 16627 Avalon Blvd., Gardena, Calif., FA 1-4020. | James H. Langworthy, president; Harold W. Hodges. |
| Chemical Milling Int. Corp | 1330 East Franklin Ave., El Segundo, Calif., OR 8-3796. | Frank L. Bailey, president; E. Lawrence Brevik, vice president. |
| Cliffdale Manufacturing | 10055 Canoga Ave., Chatsworth, Calif., DI 0-4477. | Clifford F. Parchman, president. |
| Coleman Engineering Co., Inc | 3500 Torrance Blvd., Torrance, Calif., FR 6-8921, FA 1-3900. | T. C. Coleman, president; E. A. Gardner, vice president. |
| Conair, Inc | 731 West Wilson Ave., Glendale, Calif., CI 2-2168. | B. H. Fortner; Stan Ruzicka. |
| Costello Bros. Metalcraft | 1334 Santiago Ave., Santa Ana, Calif., KI 3-7387. | Charles Costello, partner; Ray H. Costello, partner. |
| Custom Enamelers Corp | 6381 Western Ave., Buena Park, Calif., LA 2-5752. | Harry D. Good, president; Jay Boyle, vice president. |
| Dear-Bank Corp | 9710 Factorial Way, El Monte, Calif., CU 3-6275. | C. L. "Chet" Highnote, vice president. |
| De Hater Paper Co | 640 South Flower, Burbank, Calif., TH 8-5517, VI 9-3129. | Roy De Hater, president. |
| Del Mar Engineering Laboratories | 6901 Imperial Highway, Los Angeles, Calif., OR 8-4371. | Bruce Del Mar, president; Neil Lamont, vice president, sales sales and service. |
| Delta Plating Co | 988 Seco St., Pasadena, Calif., SY 5-5521. | H. James Farr, partner; Frank Hebert, partner. |

*Membership roster, Strategic Industries Association, Los Angeles, Calif., Jan. 1, 1960*—Continued

| Company | Address and telephone No. | Company representative, principal-alternates |
|---|---|---|
| Eaton Stationery & Printing | 2700 West Burbank Blvd., Burbank, Calif., VI 9-5554. | Robert W. Eaton, president; Charles G. Osborne, foreman. |
| Edcliff Instruments | 1711 South Mountain Ave., Monrovia, Calif., MU 1-5671, EL 8-4571. | H. R. Gillespie, Jr., general manager; E. J. O'Leary, general manager (Conelco). |
| Electroforms, Inc | 239 East 165th St., Gardena, Calif., FA 1-2905. | Paul Silverstone, president. |
| Electrolizing Sales, Inc | 1947 Hooper St., Los Angeles, Calif., RI 9-7876. | David Grant, general manager. |
| Electronics Development Co., Inc | 3743 Cahuenga West, North Hollywood, Calif., TR 7-3223. | C. G. W. Anderson, vice president; Fred P. Leaming, secretary-treasury. |
| Endevco | 161 East California St., Pasadena, Calif., MU 1-5231. | H. Dudley Wright, president. |
| Finch, Robert, attorney at law | 318 East Hillcrest Blvd., Inglewood, Calif., OR 7-6636. | Robert Finch. |
| Fortner Engineering & Manufacturing, Inc. | 918 Thompson Ave., Glendale, Calif., CI 2-0307, CH 5-4591. | W. L. Fortner, Jr., E. D. Fortner. |
| Frebank Co | 711 West Broadway, Glendale, Calif., CH 5-6558. | Fred Bankey, president and general manager; Joseph E. Tillery, sales manager. |
| Gamah Corp | 1654 Lincoln Blvd., Santa Monica, Calif., EX 3-0401. | George A. Mahoff, president; Leonard L. Rice, vice president, chemical engineering. |
| Garrison Metal Finishing Co | 10932 Vulcan, South Gate, Calif., TO 1-2911. | |
| Genisco, Inc | 2233 Federal Ave., Los Angeles, Calif., BR 2-2706. | E. C. Burkhart, president; Leo Fischer, treasurer. |
| Glide-Easy Manufacturing | 551 South Arlington Ave., Torrance, Calif., FA 8-8880. | Frank Van DeWater, manager; G. B. McWilliams, president; Bill Romo. |
| Hardesty Research & Development | 14644 Keswick St., Van Nuys, Calif., MA 6-1326, KI 5-9468. | E. F. Hardesty, owner-manager; Robert Brian Brophy, projects director. |
| Harrison, Lytle, Jr | 342 North Orange Dr., Los Angeles, Calif., WE 4-8555. | Lytle Harrison. |
| Hartco Metal Products | 1055-59 Victory Pl., Burbank, Calif., TH 6-8274. | Hugo A. Hartkopf, owner. |
| H. A. Henderson Co | 5039 West Jefferson Blvd., Los Angeles, Calif., RE 3-9151. | H. A. Henderson, owner; T. C. Henderson, manager. |
| Hi-Shear Rivet Tool Co | 2600 West 247th St., Torrance, Calif., DA 6-8110. | George S. Wing, president; Guy Nash, sales manager. |
| International Electronic Research Corp. | 177 West Magnolia Blvd., Burbank, Calif., VI 9-2481. | Harvey Riggs, president. |
| K & L Anodizing | 1839 Dana St., Glendale, Calif., CH 5-4091. | Dorrance J. Leiker, president. |
| Kittell-Lacy, Inc | 10816 East Fawcett Ave., El Monte, Calif., CU 3-7958. | Lisle D. Horton, president. |
| Laidlaw, James S., rear admiral, USN, retired. | 2944 Magna Vista St., Pasadena, Calif., SY 6-6324. | James S. Laidlaw. |
| L N W Machine Shop | 7421 Varna Ave., North Hollywood, Calif., PO 5-5245. | Peter A. Sitnick, partner; Harry Lingle, partner; Frank Nelson. |
| W. D. Long Packaging Co | 157 Santa Clara St., Arcadia, Calif., HI 7-1237. | W. D. Long, owner. |
| Mahony Engineering | 130 West Verdugo Ave., Burbank, Calif., VI 9-4334. | James L. Mahony, owner. |
| A. M. Martin Manufacturing Co | 1966 East Walnut St., Pasadena, Calif., SY 2-1460, EM 1-1286. | Frederick W. Wade, president; Mr. Fisher. |
| Mattison, Thomas & Lockett | 210 West 7th St., Los Angeles, Calif., MA 7-4645. | John M. Davis, partner; Delbert V. Werderman, partner. |
| Meletron Corp | 950 North Highland Ave., Los Angeles, Calif., HO 3-4841. | George A. Starbird, president; Elton Cannon. |
| Micro De-Burring Co | 121 West Linden Ave., Burbank, Calif., VI 9-1075. | Thomas G. Heywood, partner. |
| Mid-Continent Manufacturing, Inc | 3613 Aviation Blvd., Manhattan Beach, Calif., OS 9-2551. | Duane Denney, vice president; T. J. Webb, plant manager. |
| Milbore Co | 430 West Acacia St., Glendale, Calif., CH 5-4178. | Maurice Koehler, owner; Michael Berdusco, shop foreman. |
| Miller Bros. Printing | 1001 West Olive, Burbank, Calif., TH 8-4051. | W. A. Miller, owner; L. R. Miller. |
| Pacific Metals Co., Ltd | 2187 South Garfield Ave., Los Angeles, Calif., RA 3-5431. | Albert H. Drachman, vice president; Owen G. Lanzit, division sales manager. |
| Pacific Scientific Co | 10242 Placentia Ave., Anaheim, Calif., PR 4-5217. | Leo A. Pfankuch, vice president; Mark A. Steyaert, comptroller. |
| Pasadena Steel Treating Co | 359 Del Monte St., Pasadena, Calif., MU 1-9528. | Burton R. Payne, Jr., president; Richard B. Durfee, Jr., manager. |
| Pettit, Walter F., attorney at law | 405 Montgomery St., San Francisco, Calif., PL 3-3306. | Walter F. Pettit. |

*Membership roster, Strategic Industries Association, Los Angeles, Calif., Jan. 1, 1960*—Continued

| Company | Address and telephone No. | Company representative, principal-alternates |
|---|---|---|
| Product Techniques, Inc | 511 East 87th Pl., Los Angeles, Calif., PL 3-3306. | Fred Morgan, president; Gordon Throne, general manager. |
| Public Information Programs, Inc | 10000 Riverside Drive Bldg., North Hollywood, Calif., TR 7-3238. | Dave Showalter; Jim Flint. |
| The Questers Corp | 1026 East Arlee Pl., Anaheim, Calif., PR 4-0063. | Maynard E. Chapman, president; Howard L. Greener, production manager. |
| R C H Manufacturing Co | 811 Airway, Glendale, Calif., CI 6-1793. | Wayne E. Redburn. |
| R-L-F Engineering | 731 West Wilson Ave., Glendale, Calif., CI 2-2168. | Stan Ruzicka; B. H. Fortner. |
| Ram Products Co | 925 East Redondo Blvd., Inglewood, Calif., OR 8-7457. | Andrew Rehard, coowner; John Schaefer, coowner. |
| Donald D. Rea & Co | 437 South Hill St., Los Angeles, Calif., MA 6-4323. | Donald D. Rea, owner; Lawrence H. Larsen, staff member. |
| Redel, Inc | 220 North Atchison St., Anaheim, Calif., PR 4-3624. | Jay W. DeDapper, president; Douglas C. Vest, vice president. |
| Reeve Darling & Associates | 232 North Lake Ave., Pasadena, Calif., MU 1-0259, SY 2-4151. | H. Reeve Darling, Jr., owner; R. C. Christensen, associate. |
| Regent Jack Manufacturing Co., Inc. | 11905 Regentview Ave., Downey, Calif., SP 3-0103. | O. A. McPeek, president and general manager; William S. Noblitt, vice president, public relations; Frank S. Pearne, vice president, engineering; John H. Keber, secretary. |
| Resistoflex Corp | 301 North Crescent Way, Anaheim, Calif., MA 5-1558, PR 2-4700. | G. G. Bell, manager, western division; Robert A. Paulbach, sales manager. |
| Riggs Nucleonics Corp | 717 North Victory Blvd., Burbank, Calif., VI 9-2481. | Harvey Riggs, president; John Markley, vice president; Robert R. Lent, vice president. |
| Rimak, Inc | 10929 Vanowen, North Hollywood, Calif., TR 7-5526. | Rinard W. Flint, general manager; Bill Bowers, sales manager. |
| Rocker Solenoid Co | 140 North Marine Ave., Wilmington, Calif., TE 4-2588. | William R. Rocker, president; Edward W. Ellis, purchasing agent. |
| Rosan, Inc | 2901 West Coast Highway, Newport Beach, Calif, LI 8-5533. | William A. Schmidt, assistant to president; Stanley E. Ridderhof, vice president. |
| Russ, York, & Galloway | 303 Security Bldg., Glendale, Calif., CI 6-1696. | Donald J. York; Edwin W. Russ |
| Santa Barbara Machine Co., Inc | Building 252, Santa Barbara Airport, Goleta, Calif., WO 7-2131. | William R. Griffith, president; Niels P. Olsen, vice president. |
| Saunders, David | 458 South Spring St., room 610, Los Angeles, Calif., MA 6-0671. | David G. Saunders. |
| Seeco, Inc | 2204 Colorado Ave., Santa Monica, Calif., EX 4-5771; TE 0-4401. | S. C. Brown, president; Floyd G. Eckerman, factory manager. |
| Servonic Instruments, Inc | 640 Terminal Way, Costa Mesa, Calif., MI 6-2427. | James A. deJulio, president; Patrick S. Chase, vice president and general manager. |
| Sheet Metal Research & Development Co. | 3727 San Fernando Rd., Glendale, Calif., CI 4-0275. | Charles Mattucci, owner. |
| Whilliam Thomas Snebold | 2017 Paseo del Sol, Palos Verdes Estates, Calif., FR 8-1525. | William Thomas Snebold. |
| Southern Plastic Mold, Inc | 875 South Rose Pl., Anaheim, Calif., PR 4-6633. | Larry Noggle, president; Wayne Lewis, secretary. |
| Southwest Products Co | 1705 South Mountain Ave., Monrovia, Calif., EL 8-0181; MU 1-9616. | K. V. Hackman, president and general manager. |
| Space Electronics Corp | 930 Airway, Glendale, Calif., CH 5-7651. | F. W. Lehan, vice president; C. W. Snider, treasurer. |
| "Special" Corp., The | 870 Essex St., Brooklyn, N.Y., NI 9-8600. | Victor Silber, partner; E. L. Kellow, sales representative; Harry Maraynes. |
| Specification Packaging Engineering Corp. | 6869 North Tujunga Ave., North Hollywood, Calif., PO 2-2128, TR 7-5571. | Mrs. Olive Salembier, president; Joe Poland, assistant manager, Harold Myers, executive assistant. |
| Speed-D-Burr Corp | 3613 San Fernando Rd., Glendale, Calif., CH 5-6883. | H. J. Miller, president. |
| Statham Instruments, Inc | 12401 Olympic Blvd., Los Angeles, Calif., BR 2-0371. | Gordon Earl, treasurer. |
| Task Corp | 1009 East Vermont Ave., Anaheim, Calif., PR 4-3100, MA 4-3753. | Elmer F. Ward, president; Wayne M. Beebe, assistant to president. |

*Membership roster, Strategic Industries Association, Los Angeles, Calif., Jan. 1, 1960*—Continued

| Company | Address and telephone No. | Company representative, principal-alternates |
|---|---|---|
| Tavco, Ltd | 2906 F Colorado Ave., Santa Monica, Calif., EX 4-3781. | W. Ellwood Jae, general manager; Robert W. Dalton, works manager. |
| Telemeter Magnetics | 9937 West Jefferson, Culver City, Calif., VE 7-5321. | Trude C. Taylor, vice president. |
| Todeco, Inc | 705 South Isis Ave., Inglewood, Calif., OR 8-1137. | William M. Whitney, president-treasurer; Robert H. Davis, Jr., vice president-secretary. |
| Torrance Brass Foundry, Inc | 1825 West 213th St., Torrance, Calif., NE 6-2529, FA 8-4284. | William B. Breaker, Controller; F. Harwood Clark, president. |
| Turbocraft, Inc | 492 East Union, Pasadena, Calif., MU 1-5253. | Clifford R. Crusan, president; Frank Mondok, manager-engineer. |
| Ultrasonic Testing and Research Laboratory. | 14710 Rayner St., Van Nuys, Calif., TR 0-5856. | W. C. Hitt, president. |
| Union Bank | 12140 Victory Blvd., North Hollywood, Calif., PO 6-3911, TR 7-1547. | Frank J. Dunbar, manager, business development; Melvin McKinney, assistant vice president. |
| United Electrodynamics | 1200 South Marengo Ave., Pasadena, Calif., MU 2-1134. | W. P. Patterson, vice president and general manager; R. J. Landy, assistant to general manager. |
| Valley Engravers, Inc | 505 South Victory Blvd., Burbank, Calif., TH 5-7234, VI 9-5723. | H. R. Vermillion, president. |
| Valley Screw Products, Inc | 11423 Vanowen St., North Hollywood, Calif., PO 5-7631. | Jim McMahon, president; Bud Glikbarg. |
| Vinson Manufacturing Co | 8044 Woodley Ave., Van Nuys, Calif., ST 6-7210. | Howard F. Schmidt, president; Lester F. Bond, secretary-treasurer. |
| W. M. C. Grinding, Inc | 11254 Regentview Ave., Downey, Calif., TO 9-1128. | Alfred Mourey, president. |
| Wahlgren Magnetics | 1900 Walker Ave., Los Angeles, Calif., MU 1-8456. | Wayne Brown, manager; Gordon Marshall, owner. |
| Paul A. Weilein | 714 West Olympic Blvd., Los Angeles, Calif., RI 8-2277. | Paul A. Weilein. |
| Wells, Fred M., Inc | 9630 Fern Ave., El Monte, Calif., CU 3-8531, GI 3-2286. | Fred M. Wells, president. |
| Western Devices, Inc | 600 West Florence Ave., Inglewood, Calif., OR 8-7827. | Winton C. Strumpell, president. |
| Western Land & Development Co | 11630 Sessler St., South Gate, Calif. | |
| Wiggins, E. B., Inc | 205 Pasadena Ave., South Pasadena, Calif., AN 9-0181, CL 6-2120. | I. A. Leavell, plant manager; G. A. Pierson, general manager. |
| Zero Manufacturing | 1121 Chestnut St., Burbank, Calif., VI 9-5521. | T. C. Combs, vice president, engineering; John B. Gilbert, president. |
| Barton Instrument Corp | 580 Monterey Pass Rd., Monterey Park, Calif., CU 3-6501. | Barton Jones, president. |
| The Zippertubing Co | 752 South San Pedro, Los Angeles, Calif., MA 4-6664. | Walter A. Plummer, president. |

NATIONAL, SUSTAINING, AND HONORARY

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| Adel Precision Products | 10777 Vanowen St., Burbank, Calif., PO 2-1131. | Mr. Zimmerman, W. L. |
| Hydraulic Research & Manufacturing Co. | 2835 North Naomi St., Burbank, Calif., VI 9-6111. | C. M. Martenson, vice president and general manager; S. A. Baker, treasurer. |
| Jefferson Electronic Products Corp | 322 State St., Santa Barbara, Calif., WO 5-8505. | W. W. Kratz, president; Lyle J. Biskner, general manager. |
| A. E. Schuricht-Genesys Corp | 10131 National Blvd., Los Angeles, Calif., VE 7-5333, UP 0-4671. | A. E. Schuricht. |

Mr. MULTER. Mr. Smith, any questions?

Mr. SMITH. Mr. Lent, in addition to your own personal experience, as chairman of the Strategic Industries Association, of some 130 small businesses, you have had an opportunity, I assume, to hear, read, and have submitted to you many of the complaints of the members on this particular subject of proprietary data?

Mr. LENT. Yes, I have, Mr. Congressman.

Mr. SMITH. Would I be correct in assuming, although we are not trying a legal case, that your presentation here is more or less of an opening statement, for the benefit of the committee and the members, or for the jury, as it might be; and that is to be followed by specifics from other witnesses. Is that correct?

Mr. LENT. It was intended as such.

Mr. SMITH. How much analysis of the product is to be performed before the Government would say the data are not disclosed by inspection or analysis?

Mr. LENT. That is a moot question. It varies according to the individual that you might be negotiating with. One individual will assume that anything can be reverse-engineered, and therefore it does not qualify under the definition of proprietary rights.

Another one will diligently analyze the product and he again, if he follows the regulation, can only conclude that it does not fall within the definition of proprietary rights.

So, it varies, Mr. Congressman, between individuals who are carrying out the negotiation.

It is the position of the members of the Strategic Industries Association that this is not a sound method of determination of proprietary data. The creativeness of a particular individual which results in the development into a product which has never been seen before, and works only because of the unique design or the particular skill that goes into it, must be protected; and certainly, if a qualified engineer were to review and analyze any product, he could, in all probability determine how that thing worked, and what it was.

Yet, the standard practice in industry is to respect the design capability of a fellow designer or even a competitor. I would say that the ethics between competitors in industry are higher than is the relationship between the Government and the company.

Mr. SMITH. Do you think it would be reasonable to say that there actually isn't any limit on the time or effort required to discover this information?

Mr. LENT. I would say yes.

Mr. SMITH. Do you think it is fair to say that under this ASPR definition nothing could qualify as proprietary data?

Mr. LENT. We have concluded that this is so. Given enough time and given enough talent, the methodology involved in any product can be determined.

Mr. SMITH. From your statement, would I be correct in assuming that the lack of a workable definition of proprietary data is actually the root of your difficulty, of your members' complaints?

Mr. LENT. Yes, sir; unquestionably so.

Mr. SMITH. And the implementation of the policy, the ASPR policy, by contracting officials, is the consequence of a failure to establish a workable definition?

Mr. LENT. Yes, sir.

Mr. SMITH. Thank you very much, Mr. Chairman.

Mr. ROBISON. Mr. Lent, if I understood you correctly, you said or you indicated that there is somewhat of a comparable problem in civilian production, but that business ethics, as such, normally stand in the way of that problem becoming a serious one.

Mr. LENT. Yes, they do.

You can always find violations of this code of ethics, but I would say, generally speaking, in the area of sophisticated design, which is required for military-type products, that the ethics are very high between industrial concerns. We respect the creativity of another organization.

Now, I think it is important to try to separate the different types of businesses. One is a contributory type of business where you have creative engineers and scientists who design and develop new products to meet certain requirements, be they industrial, consumer or military.

The other type, which is equally as essential to our free enterprise system, is the company that builds what has been created.

You will find frequently in the small metal fabrication organizations that they do not carry engineering talent or creative designers. They take somebody else's design and produce it.

Now, this is as essential to us as it is to large industry. We do not criticize any type of business. But we do not believe that it is justifiable to take our creative know-how and give it to this fabricating shop and then hold us responsible for the reliability and the effectiveness of the product once it is introduced into the military inventory.

May I give you an example of this? In a company that I was employed by, Baldwin-Lima-Hamilton Corp., we did the design of a six-component force measurement system, used in the launching of Titan and Atlas missiles. Here we took an item, which was a sting balance, used for measurement of minute forces acting on a model in a wind tunnel, and conceived the idea of using this basic principle and designing it in order to measure thousands and thousands of pounds.

In this instance for measurement of the thrust of a rocket engine, we are talking in terms of 350,000 pounds.

We designed this and sold it, and were required to guarantee one-tenth of 1 percent system accuracy. So we built it and installed it and checked it out on the first stand. We did the same on the second stand.

Then they decided that they could get it done cheaper, and went to a fabricating shop and had it made by routine fabricators. But yet they would not relieve us of the responsibility of the end accuracy.

We had no control over the fabrication, the installation, or the checkout of the system but yet, because it was our original design, we were told that we were responsible and were required to warrant the performance of that particular system.

Well, no one in their right mind would ever agree to a set of conditions like this. In industry, if we sell something to the military, and it is our own development which we have paid for, tested and checked out, we normally warrant its performance. If it does not perform according to our specifications, we make it good.

We should not be expected to warrant something that we do not control.

Mr. ROBISON. Elaborate a little bit, if you will permit, Mr. Chairman, as to what you feel this situation, as you have explained it in your opening statement, is doing to the incentive on the part of small business to take its proper part, let us say, in the scientific progress that this Nation needs to make now.

Mr. LENT. Well, the answer is plain and simple; these people are turning away from spending their own research and development money, which comes out of profits, for the benefit of the military services, and their requirements.

Now, there is no fanfare associated with the small businessman turning his back on the military requirement. You will not read it in headlines or hear it on the radio. He just is among the missing.

In the testimony of Mr. Hahn, who is president of the Airborne Research & Development Corp., he will tell you what his company has done with their research and development dollars. I suggest that it may surprise you to find that this creativeness, which has been repetitively demonstrated in meeting unique and very important military requirements, has been diverted to a commercial item. Mr. Hahn and his partner, Mr. French, are very resourceful and energetic men. They are going to be successful in spite of everything that is thrown against them.

If they cannot be successful in the field of military components, they are going to be successful in the consumer field or industrial field.

I think this is as straight an answer as I can give you.

Mr. ROBISON. Thank you very much, sir.

Mr. MULTER. Mr. Lent, you introduced to us earlier seven gentlemen. We have listed only five of them as witnesses. Do you want the committee to call the other two gentlemen, who are not listed as witnesss: Mr. Riggs and Mr. Burkhart?

Mr. LENT. Mr. Burkhart was unable to come to Washington, so we had to cancel him.

Mr. Schmidt happens to be in Washington on other business, and, as a member of the Strategic Industries Association, is here to observe.

Mr. MULTER. How about Mr. Riggs?

Mr. LENT. Mr. Riggs will not be testifying, sir.

Mr. MULTER. Congressman Yates, have you any questions?

Mr. YATES. Not at the moment, Mr. Chairman. Thank you.

Mr. MULTER. Mr. Maness.

Mr. MANESS. Without oversimplifying the problem, is it one of compensation, or is it one of secrecy of data from other manufacturing sources?

Mr. LENT. Secrecy of data from other manufacturing sources.

Mr. MANESS. Would not the payment for the proprietary data solve the problem as regards small business in the proprietary data field?

Mr. LENT. Well, there, Mr. Maness, I think you will find an oversimplification: How do you determine the value of this secret information?

Let us assume that as a result of design creativity a given company can project their business and their earnings over a period of 10 years, based upon their products. How do you put a price on this, and how

do you put a price which will be considered reasonable from the point of view of the military, using the taxpayers' dollars?

I think it is almost impossible to place a fair price on such a treasured yet nebulous thing.

Mr. MANESS. Have efforts been made through negotiation between the Department of Defense or the services and the small business concerns to come to a reasonable price for the trade secret or the proprietary data?

Mr. LENT. I must answer you now in my own experience. I can tell you that I have never been approached, nor had the subject even discussed in negotiation. I know the regulation says that it is the policy of the Government to pay for proprietary data, but I have never had the experience.

Mr. MANESS. Do you, of your own knowledge, know of any other company who has had experience in negotiation?

Mr. LENT. No, sir; I do not. I know of companies who have placed a value on proprietary data and submitted as a proposal to the military, and the military thought that it was unreasonable and denied it.

But I have never, in all of the discussions that I have had with our member companies, and with many other companies throughout the country, heard of anyone successfully negotiating the value of a proprietary right.

Mr. MANESS. Mr. Lent, is the definition, as expressed in the ASPR regulation, which is now part of the record, satisfactory?

Mr. LENT. No, sir; it is not.

Mr. MANESS. Do you have any suggested changes, or would you like to submit for the record suggested changes?

Mr. LENT. We would like to have some time on this, Mr. Maness. It is a very difficult thing to define. We do not chide the military, because we know it is very difficult, and if you examine the laws of trade secrets, you will find it is equally difficult to understand some of the decisions.

However, we do believe that if a representative group of industry and the military were to sit down under the proper conditions and in the proper frame of mind, that this can be resolved into a satisfactory definition, which would be acceptable to the military and to industry. But it is something that has to be knocked out almost word for word.

I think it would be presumptive on our part to give our definition of it without a great deal of checking back and forth with different groups of industries. We represent only a small group of industries.

I think that we would be presumptuous to think that our way was the only way.

Mr. MANESS. Do you know of your own knowledge, or have you heard how other small business organizations feel about the ASPR regulation?

Mr. LENT. I would say that there is a very prevalent sense of indignation. I am very pleased and I am very proud that we have the type of men in our organization who are willing to come before this committee and testify.

For the five or six who will testify before you, I know of literally hundreds who have the same complaints, but refuse to testify.

Now, their motivation for not testifying, I think, is fear of reprisal, or perhaps they are presently in a negotiation which they feel might be affected. In spite of our advising them that it has never been our experience to witness reprisals by the military, they still are reluctant to testify and to expose all of the facts. But the men who are testifying before you today are testifying in good faith, and they have done enough business with the military that they know that the military will listen reasonably and not be guilty of any adverse actions.

Mr. YATES. I must confess that I don't know as much about this subject as I should, but, after reading your statement and after listening to your testimony, the thought occurs to me as to why the military isn't buying and why you are not selling the know-how that you say is proprietary interest. They are trying to buy from you a way of procedure, or a method, a methodology, in addition to the project; are they not?

Mr. LENT. Well, there are several cogent reasons why they require certain information which we would consider proprietary.

For instance, I am sure that in maintenance and supply there are very definitive requirements for knowledge of the nomenclature—I mean the know-how—of this product, so that it can be repaired; that it can be cataloged; that it can be handled within the inventory. We do not object, Mr. Congressman, for that information to be in the hands of the military.

The only objection that we have is that when we give this information to the military in good faith, we do not like to have it used as a competitive tool against us.

In other words, where they would put it out on an invitation to bid against us.

Mr. YATES. Isn't this what the Services are buying for their own use? Where is the line to be drawn? The military has a job to do—they are trying to get some of your good ideas, so they can take them to somebody else and thereby speed up the very concept that they have.

Mr. LENT. You said the magic word, Mr. Congressman.

Mr. YATES. Do I get a prize?

Mr. LENT. That is precisely what we consider to be unfair.

I think, to help you understand, you should know that industry does not criticize, nor do they complain too much—that is, when the military puts out a research and development contract for the development of a product that they need—we feel that they are entitled to all of the knowledge and information that is developed under this contract. We differentiate between that which the Government buys under a research and development contract and that which the Government buys off the shelf, which has been developed by a company.

Mr. YATES. A piece of hardware.

Mr. LENT. A piece of hardware.

Let us assume that it is a particular type of electro-mechanical device which somebody has developed.

Mr. YATES. And has a patent on it, or not patented?

Mr. LENT. In this case, let us say it is not patented, but it is unique in design; nothing has ever appeared quite like it.

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Then, if we have spent our own money for this development and sell it to everyone else, including industry, at a certain price, and the Government comes to us and says, "We need that, too," but they say, "as a condition of selling it to us, you must give us all your rights and all your know-how on it," then we rebel. We say it is not worth doing business with the Government if you are going to make these demands against us.

Does that explain it?

Mr. YATES. Yes, it does.

I just wonder why this particular item of yours isn't patented, or is it not patentable?

Mr. LENT. Not patentable, and normally it is not. Sometimes you will find industrial concerns with a product who, even though it may be eligible for patent, still decide against patent.

Mr. YATES. Don't want to disclose even to the Patent Office?

Mr. LENT. Yes, sir; and sometimes it is a long, laborious affair to get a patent. Some of them feel that if they get patents, that their employees might think they have it made and rest on their oars for the next 5 or 10 years.

So there are some companies who do not believe it is essential for them to have something patented.

Normally, I would say that this is the exception rather than the rule.

Mr. YATES. These devices you are testifying about, one of them is that that was developed by your company at your own expense?

Mr. LENT. Yes, sir.

Mr. YATES. Rather than under any kind of a military or development contract with the Government?

Mr. LENT. Yes.

In the case of Statham Instruments, this was true with all of our products.

With Riggs Nucleonics, this is also true.

Mr. YATES. Thank you.

Mr. MULTER. Let us see if we cannot clarify at least my thinking, so that we can move along to try to solve the problem that you are trying to present.

I think we can all agree that good morals and good ethics and the law require that anyone who has a trade secret may retain that trade secret, and may not be compelled to dispose of it—you cannot take it away from him, not even the Government—without proper compensation. I think we can all agree to that, can we not?

Mr. LENT. Yes, sir.

Mr. MULTER. The next problem is: Does the regulation, or, rather, before we even get to the regulation, does the policy of the agencies, the Government agencies, the Defense Department and its various subsidiary departments, the other agencies that you and your associates deal with, are they in sympathy with that policy?

Mr. LENT. With which policy?

Mr. MULTER. That no man's property should be taken from him without compensation or without due process of law, and that no man can be compelled to sell his trade secrets, and no one should invade his trade secrets.

Mr. LENT. I would say, Mr. Chairman, with very, few exceptions, that individuals within the military department, and this is both military and civilian, do believe in this basic policy.

However, I think that it is worthwhile to point out some of the reasons why this tendency toward usurpation of proprietary data develops, and may I qualify myself to you to answer this particular question by stating that I spent 12 years as a Regular officer in the Air Force, and resigned in 1954.

In the last 4 years I was in the Pentagon, in the office of the Deputy Chief of Staff, Development, as an executive officer. It has been my observation that perhaps the source of most of this difficulty stems from the congressional requirement of buying as much as possible on an advertised-bid basis.

Now, there is nothing wrong with advertised bids, providing the item to be procured under advertisement is readily recognizable, and that the specification is sufficiently clear that no one is in doubt as to what you are purchasing.

So, on things that the military has had a great deal of experience with, and knows what it is procuring, then the advertised bid is a sound way to procure it.

But when it comes to sophisticated components, and systems, it is almost impossible to buy on an advertised-bid basis, because you usually cannot describe what you are buying in such detailed terms that each man who bids knows precisely what he is bidding on.

As a result of this mandatory requirement for negotiated bids individual Members of Congress will quote statistics that 80 percent of the dollar volume of the appropriation for the military department went to big business, or it went to negotiated bid, and they believe that the intent of Congress is not being carried out.

So the military is brought to task on these certain things.

Then it becomes a natural desire on the part of the military to try to satisfy this criticism by putting items out for advertised bid as much as they possibly can. They cannot put something out for advertised bid unless they know fundamentally what it is. This is one of the basic reasons why the demand for extensive and comprehensive proprietary know-how exists.

I think that it must be recognized that this is one of the things that cause our problem.

I do not believe, for instance, that it is in the intent of Congress that the military should buy everything on advertised bid, but it is the intent of Congress that they buy what they can on advertised bid. So I think there is some misinterpretation down the line as to what really is at stake.

Mr. MULTER. Well, I think we are getting into another subject, but let us, at least for the record, since you do talk about the negotiated bid and the advertised bid, let us put these figures in the record, so that we will be able to get a better, a true picture of the situation.

The total military procurement for 1958 was $21,827 million of which the military negotiated and awarded contracts for $18,712 million, and advertised and awarded bids under advertised bids for only $3,115 million.

Small business got negotiated contracts of $1,935 million and advertised bids of $1,794 million.

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For fiscal 1959, military procurement that went by negotiation was $19,655 million and advertised was only $3,089 million.

Small business got $2,317 million of negotiated bids, and $1,466 million of advertised bids.

Now, before we pursue that question, I would like to go back to the question I asked you a moment ago:

Do you believe that the Government agencies are sympathetic to the policy that a man's trade secrets are his, and they cannot be taken away from him; and, on the other hand, if he wants to sell them, they have a right to buy them? Are they generally sympathetic to the policy?

Mr. LENT. As individuals, yes. As an organization, no.

Mr. MULTER. Well, do you think that we should write anything into the law to more firmly set that policy for all Government agencies?

Mr. LENT. In answer to your question, it would be my opinion that Congress should not enact new legislation.

You have the Procurement Act of 1947, which is the basic authority for the military to procure, and the military in good faith generally has done an excellent job of interpreting the intent of Congress in ASPR, the Armed Services Procurement Regulations. Only certain parts of it, Mr. Chairman, are questionable, and I don't think it is necessary for Congress to correct them by legislation. I think the military will eventually find that it is in its best interest to respect the rights and privileges of industry and to do business according to practice, and according to the law, that has been established over the years.

In other words, I think the law is adequate, Mr. Chairman. It is just a matter of following it.

Mr. MULTER. When we talk of law, can we conclude, can the committee conclude that the language of the regulation, ASPR, is sufficient if you get sympathetic implementation of the regulation, or does the regulation in its language need change?

Mr. LENT. In section 9, part 2, there is a very definite requirement to rewrite the language.

The language is written in such a way that it is very easy for someone to misinterpret it and the definition of proprietary rights is so narrow that it is practically nonexistent.

So, in this particular area, I do believe that there is a requirement to rewrite that section; but when I say the regulation in general is good, I mean that. I think they have done a splendid job in most respects.

Mr. MANESS. Just one question, Mr. Chairman.

Mr. Lent, you spoke about reprisals or fear of reprisals. Is that fear of reprisal from the Department of Defense or its services, or is it fear of reprisal from the prime contractor?

Mr. LENT. A little of both. But I hasten to add that I believe it is totally unfounded. A small businessman has to scratch for his living, and he is fearful of something happening which may hurt his business or may put him out of business.

Even though he doesn't understand it for sure, he is, a lot of times, worried about such things; but I want to repeat that, to my knowledge, I have never seen this take place. I think the fears are unfounded.

Mr. MANESS. Thank you, Mr. Chairman.

Mr. DALMAS. Mr. Chairman.

Mr. Lent, under the regulation, ASPR 9–2, at what level of procurement is the decision made to require the bidder or the negotiator to turn over to the Government certain trade secrets and proprietary rights? Is that the contracting officer? Is it at a higher level, or what is the method and the way they arrive at that decision?

Mr. LENT. Much depends, Mr. Dalmas, on the service involved.

I think that you will find that in the Navy they have a more centralized authority than does the Air Force or Army. The authority, as I understand it—and let me speak about the Air Force—would rest with the ACO, which is the Air Force contracting officer. This authority is delegated down to him, of course, from the Director of Procurement.

But in practice, the authority of the ACO is delegated further down to almost any buyer. Any buyer therefore can make the demand, and if you, as a small businessman, do not understand the military organization, as far as you are concerned, he is the supreme authority.

But if you go in and request review, the authority goes back to the ACO.

Mr. DALMAS. Mr. Lent, your answer would indicate that there really wasn't any uniformity, then, as to one buyer or another buyer requesting?

Mr. LENT. That is very, very true. I should like to relate an example of how this purchase action can degenerate.

I mentioned not too long ago, in a talk I made on this subject, that the poor buyer sits in his job literally playing Russian roulette. He is pulling the trigger in every action day after day and he is liable to get his head blown off at any time, because of a mistake in his action.

So, to avoid getting his head blown off, he puts blank cartridges in the gun.

Now when he pulls the trigger and it hits a live shell, all he gets is his hair burned.

To draw that analogy to a practical situation, the buyer knows that he is under the gun all the time, and can be criticized bitterly for a mistake.

Therefore he loves to apply all of the restrictive policies that are in the procurement regulation. He applies them at random to protect himself.

Mr. DALMAS. Under his own interpretation?

Mr. LENT. Yes. He applies them to protect himself from any eventuality.

Let me give you an example. I was with Statham Instruments of Los Angeles, and there was a buyer from Boeing Aircraft in Seattle, under a prime contract with the Minuteman missile.

Apparently, he had delayed taking an action on buying a group of transducers, which are for the measurement of pressure and acceleration. All of a sudden, time ran out on him, and he had to get these items immediately.

So he called me long distance and said, "Would you please furnish me, by return wire, the price and delivery of so many transducers?" And he gave the nomenclature.

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I want to add that all of this happened in 1 day.

I replied to him by wire giving the delivery and price, and he called me on the telephone when he got the wire, and said, "Oh, my goodness, I didn't realize these things were that expensive."

He said, "Give me a price breakdown."

I told him over the telephone that this was a patented item, off the shelf; it had been sold for a number of years at this price, and that, as such, he was not entitled to a price breakdown on this product.

He said, "Well, I have got to buy this today. If I give you a purchase order number over the telephone, will you agree to negotiate the price of these items at a later date?"

And I said, "Heavens, no; I can't operate our business that way."

I said, "My price is such-and-such, and it will be delivered at such-and-such a time."

He said, "Well, I will call you back."

He called me back later in the day and said, "All right, if I furnish you a purchase order number today, will you permit me to include a code B redetermination clause into it?"

I said, "Well, I have about 17 years of experience in this business, and I have never yet heard of a code B redetermination clause being included in a fixed-price, off-the-shelf product purchase."

A code B redetermination clause means that it has an escalation clause in which you have nothing upward, but you have an unlimited downward renegotiation or redetermination.

He wanted to put that on.

I said, "No; I won't do that."

He said, "Put all this in writing."

So I sent him a wire, about this long (indicating), in which I said "No, no, no" to everything he requested, and then gave him all the reasons why.

I got the purchase order the next morning under my conditions.

Here was a typical example of what happens down the line. They are too far away from the policy determination point.

I have known buyers with prime contractors who have never read their prime contract and didn't know the conditions or the authority under which they were purchasing.

So, it gets mixed up, Mr. Dalmas, and that is an oversimplification, too.

Mr. DALMAS. Could the subcommittee assume that you favor the Navy's method of a more centralized determination when somebody has to determine the proprietary rights, that they are necessary?

Mr. LENT. Not necessarily.

Mr. DALMAS. A committee of some sort taking it out of the hands of the contracting officer?

Mr. LENT. No, Mr. Dalmas. There is a practical thing here, and that is that the military must purchase what they need, and they must purchase it expediently. To do so, they must delegate their authority to accomplish this act. I believe that the weakness in the system is the fact that the language is so contradictory.

In other words, you read one regulation, and it says this, you read another regulation and it says that, which is 180° from this. So the poor guy down at the bottom who gets this all funneled down to him, and is required to act under it, is at a loss as to what to do.

So, I believe that the basic fault here is the lack of clarity, the lack of consistency in the regulation and the implementing policies within the different departments.

Mr. DALMAS. Thank you, Mr. Chairman.

Mr. MULTER. I am wondering if you have not touched upon a very important matter. What you said a few moments ago is—we mustn't tie the hands of the Government in its procurement effort, particularly in the field of defense and national security.

There is only one instance I know of where anybody may violate a man's patent rights, and that is in the provision written into the law in title 28, section 1498, which gives the Government the right to purchase from one who does not own a patent the patented article which he may manufacture in violation of patent. The only recourse, then, to the owner of the patent is to sue the U.S. Government and collect from the U.S. Government whatever he should be paid for the use of his patent.

Now, is there not a conflict between the use of proprietary data by the U.S. Government and the use of the patented article? On the one hand, the man sits back and says, "I don't want to patent my article, or, maybe I can't get a patent on this; but this is my trade secret. This is the success of my business."

Isn't his choice, then, not to do business with the Government or to put a price high enough on it, or maybe to amend the statute so as to let him come in and claim in the Court of Claims additional compensation in cash involving the Government in its procurement efforts in the national defense, and national security and thus to compensate him properly when it finds it necessary to use his trade secret and his proprietary data?

Mr. LENT. Mr. Chairman, as a layman, I must confine my answer to my own reasoning or my own logic, and that is that, yes, we are aware of that part of the code, and we do not criticize it, because in times of emergency there is necessity for establishing second sources or establishing other sources because the man cannot produce or is producing at a price that is outrageous.

So we believe that the Government, and specifically the military, should have this escape in the case of necessity such as a case of national emergency.

However, we also believe that it should be judicially used, and it should not be an excuse for the usurpation of patent rights itself.

However, we ask only one thing, Mr. Congressman, and that is that they attempt to go through the motion of trying to resolve the problem between the contractor and the Government, rather than to arbitrarily usurp the patent grant.

If a contractor is unable to meet the requirements of the military, then he should be requested to license his product, and if he won't license his product, then the Government should say, "We have this requirement, and therefore we must have an additional source; and you have the prerogative of taking your case to the Court of Claims."

If they are getting it and the price is unreasonable, then they should try to negotiate a reduction in costs. If they cannot, then they should have the right to go someplace else.

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If he refuses to finance expansion to meet the military requirement—then they should ask him to do it. If he doesn't, then they should go someplace else.

All we are saying is that, let's do it in an orderly, lawful manner, and not on the basis of an arbitrary decision.

So we don't disagree with this, Mr. Chairman.

Mr. MULTER. Any other questions?

Mr. Lent, you have made a very excellent presentation. I dare say that you are one of the most knowledgeable witnesses I have heard in many a day, and, in addition to that, you have a facility of expressing yourself.

We appreciate it, sir.

You may remain at your seat, and then present each of the other gentlemen who are associated with you.

I think the next one you want to call is Mr. Ward?

Mr. LENT. No, Mr. Chairman. I would like to call Mr. Hahn.

(Department of Defense comments on Mr. Lent's testimony appear in app. No. 3, on p. 174, and app. No. 6, enclosure A, on p. 187.)

## TESTIMONY OF RICHARD HAHN, PRESIDENT, AIRBORNE RESEARCH & DEVELOPMENT CORP., SUN VALLEY, CALIF.

Mr. MULTER. Mr. Hahn, please give your name and address and business affiliation.

Mr. HAHN. Gentlemen, my name is Richard Hahn. I am the president of Airborne Research & Development Corp., 7530 San Fernando Road, Sun Valley, Calif.

My residence is 535 Birmingham Road, Burbank, Calif.

This organization was formed in 1955 by Mr. Howard French and myself, for the purpose of research, development, engineering, and manufacturing of airborne-liquid oxygen, liquid nitrogen, helium, and cryogenic equipment for aircraft and missile applications.

We have developed and manufactured approximately 50 different models of this type of equipment that are in production and we now have about four or five units in various prototype stages. This averages about 9 to 10 new developments per year since the date of our inception. We employ up to 80 people who are highly trained and skilled in their various capacities. We are producing a gross sale of about $700,000 yearly. And, gentlemen, we have never accepted a cost-type research and development contract from the services.

During the period of 1955, the Air Force, and Navy, were having considerable trouble with liquid oxygen valving for use on military aircraft in the breathing oxygen system. The main problem being leakage at the extremely low temperature of −297° F.—below zero—as well as unreliable operation of units ranging from this temperature to a temperature in excess of 260° F.—above zero.

One of the particular problems was with the liquid oxygen filler valve, which was designed originally by the Air Force and was being manufactured under Air Force drawing numbers. This valve was giving a great deal of trouble by freezing and leakage on all military aircraft. Thus, we decided to investigate this problem.

After months of diligent, and sometimes heartbreaking work, we did, in fact, develop the first no-leak liquid oxygen filler valve.

As the units then being used were designed by the Air Force and were being manufactured from Air Force drawings, there was no military or procurement specification covering a unit of this nature. We submitted our valve to the Wright Air Development Center, who has cognizance of testing this type of equipment, and simultaneously we submitted a similar unit to the Boeing Airplane Co. in Wichita, Kans., for possible use on the B–47 aircraft.

The results of the Boeing Airplane Co.'s tests were first to be received, with exceptional performance requirements being recorded. Not long after, the Wright Air Development Center authorized the Boeing Airplane Co. to proceed immediately in using this valve on all B–47 aircraft.

Shortly after that, the Wright Air Development Center initiated a military specification with the number of MIL–V–25469, written around the performance, as well as the physical dimensions of our unit. Very shortly thereafter, we were requested by W.A.D.C. to supply them with one of our drawings on a detail part, constituting the end fitting as well as an integral part of our valve for their evaluation.

This drawing was gladly furnished to them, but with the restricted markings, indicating proprietary rights were owned by our organization. Bear in mind, gentlemen, this valve was developed wholly and completely on the resources of Airborne Research & Development Corp. and test articles were submitted at no cost to the Government.

We certainly felt that we had proprietary rights, and, furthermore, we had no contract stating that we must surrender these rights.

Shortly after the submittal to W.A.D.C. of our drawing, an Air Force drawing was issued by the number of 56B3695. This drawing, if not copied directly, was certainly a Chinese copy of our detail drawing No. 4004, which had previously been submitted for Wright Field's evaluation.

This Air Force drawing is still presently in effect and distributed to all manufacturers, and is presently being produced by many companies. It seems as though, with or without contractual coverage, the Air Force exercised the rights in data clause regardless of rightful ownership.

The next case I would like to submit for your perusal is a valve called the female liquid oxygen filler valve for ground handling purposes, developed by the efforts and resources of Airborne Research & Development Corp. at which time, again a valve originally designed by the Air Force, and then in use by the services, was giving considerable trouble with freezing and leakage during the fill operation of the aircraft.

We again decided to tackle this problem and developed, in a period of 3 months, a modification to the Air Force-designed valve, rendering it literally impossible to freeze, and at the same time incorporating a no-leak check feature.

Again we submitted test specimens of this valve to W.A.D.C. for tests and evaluation, again at no cost to the Government. And, after a period of about 6 months, we received a report that the valve had completed its flight line testing and was completely satisfactory, with no failures recorded, either in freezing or in leakage.

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This test was conducted on the flight line at Wright-Patterson Air Force Base. The only suggestion that the Air Force had to offer was that the exterior of the valve be ruggedized, which would enable the valve to take a very rough handling, inasmuch as they felt it had received severe abuse by being dragged along the apron of the airfield by the ground handling crews. But, rather than write an Air Force specification around this unit, W.A.D.C. decided to initiate a proposal request for an R. & D. program to develop a new unit, when, by their own report, they stated our unit was entirely satisfactory.

However, Airborne Research & Development Corp. responded to this proposal and submitted our quotation, together with a proposal to modify all the present valves in service to the new no-leak valve configuration just recently developed by our organization.

Our proposal to modify the Air Force-designed valves in use to the no-leak configuration would have saved the Air Force many thousands of dollars, which they would otherwise have to spend should they select a different type of valve and then be faced with a complete retrofit program for the ground handling equipment. Even with our proposal, they decided to accept another bidder for the initial phase of the R. & D. contracts.

Bear in mind that this transpired approximately February 1958. The R. & D. contract was let to another bidder and subsequently a valve was delivered to the Air Force for their evaluation. Gentlemen, this valve is still in evaluation, and is now, at this date, undergoing modification by W.A.D.C., so that they might obtain the operation and performance characteristics they require. The services are still without a no-leak liquid oxygen ground handling valve.

The next case I would like to discuss is that Airborne Research and Development Corp., in 1958, saw the need for a valve to be used on aircraft liquid oxygen converter systems for pilot and crew member breathing. This unit is called a liquid oxygen drain valve. Now, while there was no valve then available for the Air Force to use in this application, we set forth to develop one. Subsequently, we accomplished this task and forwarded our unit to W.A.D.C. for test and evaluation. This liquid oxygen drain valve successfully completed all the tests performed by Wright Field and a short period later a procurement specification was initiated. The number of this specification is MIL–V–25962. This specification was written, again, around the performance requirements and the physical dimensions of our unit. By the time the Procurement Division was ready to release invitations for bid, other manufacturers had also qualified their unit to this specification. Airborne Research and Development Corp. responded to their invitation for bid and submitted our quotation on IFB 33–600–59–154. On the opening date of this IFB we find that we are low bidders. Now, this IFB had the rights in data clause as covered by General Provision 44. We took no exception to this clause at the time of the award because, by our interpretation of the rights in data clause at that time, we could take exception at the time of delivery of the data, if such data was of a proprietary nature. After several months of correspondence with the procurement section we found that we were possibly incorrect in the interpretation that we had applied to the rights in data clause. During our correspondence, the procurement section had advised us in their letter

dated September 4, 1959, that if we were going to take exception to the rights in data clause, it should have been done prior to the award of the contract. So, we stuck our proverbial "tail" between our legs and proceeded to comply with their interpretation of the contract. The contract was completed on schedule. We felt, at any rate, we had learned what not to do.

Please remember this IFB was an advertised competitive bid requiring prior WPL approval. There are three listed qualified sources on this item. Not long after this, we received another invitation for bid No. IFB 33–600–60–43 from Wright Field, and again, with the rights in data clause. So, we said to ourselves, "Ah, Ah! At least we know how to handle this particular situation." So we responded to the invitation for bid, and in this invitation we took exception to the rights in data clause, and stated that the drawings would be furnished, but for the purpose of training, procurement, cataloging, and so forth; and that we did not license the Government under this clause as the valve was, again, wholly and completely developed with the initiative and resources of Airborne Research and Development Corp.

Again, at the bid opening date, we find that we are the lowest bidder. So, we sat back and patiently awaited the award of the contract. When the award did not come forth, we initiated correspondence, telegrams, et cetera, to find out the status of this procurement. Much to our amazement, we find the procurement had been awarded, but not to Airborne Research and Development Corp., as the low bidder.

We asked the next obvious question, "Why?"

Our reply was contained in a letter from AMC, the procurement section, stating that our proposal was stricken as nonresponsive, inasmuch as we had taken exception to the rights in data clause, and that the data to be furnished was only for the purpose of maintenance, training, procurement, and so forth.

Please understand that this IFB was an advertised, competitive bid requiring all bidders to be prior qualified to the particular specifications and to be listed on the responsive QPL's.

There are three to four listed qualified sources depending on the particular item.

Now, gentlemen, there are other cases which could be discussed, however, at this time, I would like to point out a very serious situation which is developing in the aircraft industry. The situation is basically this: The prime contractors, the major airframe contractors, looking at this rights in data situation and seeing it for what it actually means, have included it in their procurement policy. Gentlemen, they are doing this regardless of whether it is part of their contract with the services or whether they even have a Government contract requiring the rights in data clause.

A case specifically comes to mind with the Northrop Aircraft Corp., who recently came to our company, as well as others, requesting a proposal for an oxygen quick disconnect fitting in combination with a "G" suit and ventilation suit disconnect. Their request for competitive bids included a rights in data clause that this item would become wholly and solely the property of Northrop Aircraft, and that they would have an exclusive and royalty-free license to manufacture this

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unit, and to use the drawings for whatever purpose they deemed necessary. This unit, to our knowledge, was to be used in the T–34 aircraft, then being proposed to the NATO nations.

Other prime contractors are jumping on the bandwagon and are following suit. Now, with the aircraft industry the way it is, and the prime contractors requiring all rights to our data, small organizations such as ours, who depend upon doing their own research and development and upon keeping their items protected for themselves, are threatened to the extent of complete extinction. I say this because the prime contractors are very rapidly buying up smaller businesses or even starting new divisions of their own to produce the same items as thousands of small businesses throughout the Nation are now producing. With this access to our designs and developments it is quite easy to forecast the future of our Nation's small business industry. Food for thought, gentlemen? Food for thought. Let's suppose the prime contractor does not include this in his procurement requirements but is still forced by the services to require the subcontractor to comply with general provision 44. What happens to the small businessmen then? Generally, the initial purchases, after an R. & D. costs cover a trivial quantity of production. After the initial R. & D. is done and prototypes are manufactured, drawings will be sent to any number of machine shops across the country for manufacturing of this item. These machine shops need only to follow a drawing, have no engineering, have no investment in research and development, and have no prototype costs. Certainly they can afford, in most cases, to slightly underbid the original designer.

Now, gentlemen, we, as small research and development organizations, small manufacturers, must console ourselves that something has got to be done. What can we do? We can do the obvious. We can join organizations like Strategic Industries Association, who are devoted to fighting for the rights of the small manufacturer. True, at this time we are only a group of about 130 manufacturers, all small business, all in the same boat, all facing the same problems, and we, as a small group, are grateful for the opportunity to discuss with you this day just a few of our very important problems.

But what else can we do? Can we fight with the Procurement Divisions? We at Airborne Research tried that. My previous testimony makes it quite evident what the results are when a small manufacturer stands on his own two feet and fights for what he believes is just.

Gentlemen, another serious problem—it is something I think has been completely overlooked, and that is: That the aircraft and missile industry is an industry built largely of small organizations. These organizations are highly technical organizations, highly skilled in their own particular field, such as ours—liquid oxygen, liquid nitrogen, helium type of equipment. What's going to happen when our drawings are sent to any number of organizations which are not specialists in this equipment? Gentlemen, let me assure you, you cannot pick a man's brain completely clean and show everything on a drawing that is in a designer's or manufacturer's thoughts.

Many, many design details and production techniques never reach the drawing paper, and, consequently, a matter of a few thousandths on a drawing, or an overlooked tolerance, can cause a complete failure of a liquid-oxygen valve or liquid-oxygen control unit at cryogenic

temperatures. This failure, gentlemen, can cost millions of dollars and, more important, probably many American lives, both crewmen and even innocent victims in their homes.

A specific case I know of—in fact, several specific cases I know of—when a small contractor has been beaten to his knees and forced to submit engineering drawings that rightfully belong to him, these drawings have been altered, little details missing, little notes left off, certain tolerances changed.

Many, many things can be done to a drawing that nobody but the manufacturer and the original designer would recognize as being amiss. Before these omissions are caught, many hundreds and very possibly many thousands of dollars would be spent by another manufacturer attempting to duplicate the original designer's intentions. But, what's more important, should this unit finally reach the service, an aircraft at 50,000 feet with nine men aboard could be lost if, because of one of these omissions or oversights, the unit fails.

There is no emergency substitute for oxygen. You cannot turn on an electrical switch and get emergency oxygen. You can't turn a hydraulic valve and receive breathing oxygen. This system has virtually no emergency provisions; the equipment must function properly. At 50,000 feet a man must have oxygen, or he is dead within 30 seconds. With him he takes the rest of his crew and a $4 million aircraft.

We at Airborne Research discussed this possibility and decided against any omissions or alterations of our drawings. We chose another course. We decided to use what was to have been R. & D. funds to promote as quickly as possible, a commercial division. For an item that we manufacture for commercial purposes is sold on the open market in any stores or out of any magazine, and the rights to it still remain ours. Gentlemen, the majority of our R. & D. funds which normally would have gone into the creation of new equipment or the betterment of present equipment for the services, for better units, more reliable units, is now being diverted to the manufacture of a lady's lighted compact. These compacts have a tiny light in them which illuminates her face, when she's in the car or other darkened area, for last minute or final touchup of her makeup, before going to a party, to a show, or what have you. Moreover, gentlemen, the majority of our R. & D. funds, are now going toward exploiting the foreign markets, the importing of items for the commercial markets of the United States.

Also, and probably more important, what happened to the creativity that we had in our organization for the military purpose? It is also being diverted, along with our funds, in search of new ideas for the commercial field. Possibly in valves. Possibly not. At any rate, what we develop with our own intelligence, with our own efforts, with our sweat and with our hearts, will at least remain ours. For we feel, gentlemen, this right was given to us by the Constitution of the United States, which you and I, and several other million Americans fought so desperately to preserve.

In closing, gentlemen, let me assure you, we at Airborne Research & Development Corp. can hold our heads high, for we are proud of what we have developed. We know that we were first in many lines of our endeavor, to build a mousetrap which was just a little bit better

55458—60——4

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than what was previously being used, or even conceived. Certainly we aren't alone, but as more and more manufacturers experience a few of the things you have heard here today, they too may be diverting their efforts, their sweat, their hearts, into something less irritating than doing business in the manner in which we are now forced by the present procurement regulations.

The Defense Department, by these regulations, have dulled our incentive, have lessened our initiative, and discouraged our creativeness for the military purpose. They have pointed us in the only direction we can now follow. May I emphasize, however, this has not broken our spirit. This has not destroyed our inventiveness. This has not curbed our initiative, but rather it is merely diverting it in other directions.

Finally, what can they do if they really desire to have all of the small business squarely and firmly on their great military team?

(1) The Defense Department must strike out these unrealistic and unworkable clauses in the ASPR and NASA regulations, or at least rewrite them to a sensible and workable method of coexistence.

(2) Investigation should be conducted, and a method must be devised to protect the small industries from those who evidently seek its destruction. For, gentlemen, the small businessman's customers are very rapidly becoming his competitors, and with an open pipeline to his creativeness.

(3) Recognize and respect our proprietary rights.

With this action on their part, they will have assured the small businessman that they are, in fact, concerned with his future and that they do want him as a member of their team, and that they do need his creativeness, ability, and initiative. With this assurance on their part, the small manufacturers across the country will respond, gladly, willingly, tirelessly, and they will pour out their creations for the military use in search for the better mousetrap. For, it's the next mousetrap that may well be the final step in breaking the heat barrier, the cosmic barrier, or even one of the barriers we have yet to encounter.

Again, give us the protection we must have to survive. Then ask, you will receive.

Thank you for being so very patient and listening to our testimony, which we pray will meet with your earnest and diligent consideration. I thank you.

Mr. MULTER. Mr. Hahn, you have made a very fine statement. I am sympathetic to your feelings, and I probably, if I sat in your seat, would have gotten just as mad as you felt you had a right to get at the Government.

But let us try to look at the legal aspects of the problem, so that we as legislators can determine if something should be done to remedy this situation you complain about, and if so, what?

The first question that occurs to me is when you submitted your valve to Boeing Airplane Co., did you have any contract with them as to the submission?

Mr. HAHN. No, sir; we did not.

Mr. MULTER. Was your valve patented?

Mr. HAHN. A patent has never been applied for on this valve.

Mr. MULTER. Now then, tell me, suppose Boeing Airplane Co. had made a Chinese copy of your valve and called for bids from some company other than your own, ignored you altogether, after you submitted your valve, tested it, found it perfect, just what they needed, without a single improvement; broke it down, either took your drawings or made their own drawings and went to somebody else, either made it in their own shops or had somebody else, other than you, come in and make it for them. What remedy would you have against the Boeing Airplane Co.?

Mr. HAHN. In all probability the same remedy we sought in fighting the military procurement sections. The only action that is left to us is to stand up and say what we believe is right.

If they had still gone ahead, such as the case with the military, what recourse do we have? How can we fight them?

Mr. MULTER. If you do not patent your item, it becomes public property. If you patent it, you have rights given to you by the patent law; but beyond that, if a private citizen or a private company takes the benefit of your work and your research and you have not patented the item, and you submit it to them without a contract, or specific reservations of your rights if they copy it or have somebody else make it, I would think you have no rights against them for compensation or otherwise.

Mr. HAHN. That may be very possibly true.

However, as Mr. Lent pointed out, in industry we don't seem to have too much of a problem in this respect.

As I tried to point out, there are several other companies who are also approved on this military specification with completely different designs, their own creations, doing the same job.

Mr. MULTER. Isn't your remedy, then, to patent your item, apply for a patent when you have developed it, and then when you have got it perfected, then perfect your patent and get your patent, and then your proprietary rights are yours by law? Otherwise, you have devoted it to public use. That is what the patent law says: If you don't patent your article within the time provided by law, your invention is dedicated to public use; and if dedicated to public use it is only a matter of the good will that others want to make use of it.

If it is dedicated to the public use, and if a private company has the right to use what you have dedicated to public use, even if it is your invention and you have not patented it, why shouldn't the Government take advantage of that which is dedicated to the public use?

Mr. HAHN. The only answer I can give you to that is that, why does the Government, or why would any other organization require this, these drawings, when the creation of an acceptable product can well be done—in this case was done—by three other companies.

Mr. MULTER. I think that begs the question. I think that the Government procurement agencies have a right to do that which everybody else has a right to do. I think the Appropriations Committee would be the first to jump on them, and the Government Operations Committee would be the second to jump on them, if they didn't take advantage of what was dedicated to public use, rather than devote their own energies and expend money to develop that which has already been developed and dedicated to the public use.

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Mr. HAHN. Posssibly Mr. Lent would be able to answer, in the light of the patent.

Mr. MULTER. We would like to have some guidance. As the law stands today, unless we are to change that policy and change that law which has been in existence ever since our Constitution was written, our Constitution guarantees you the right to own that which is yours, and when it gets into the inventive field, we wrote into the Constitution provisions for copyrights and patents, and if you followed the law which has been placed upon the books, pursuant to that constitutional provision, you have got your protection for the life of the patent.

Mr. HAHN. Let me only add that the cases that we selected for presentation were cases not involving patent but only involving proprietary rights.

Mr. MULTER. That is the point. If they are not patentable, I don't know how you could get the protection. Any merchant, any manufacturer could duplicate it if it is not patented, and if it is patentable and you don't patent it, then, again, any merchant or manufacturer can use it.

Mr. Lent, I think, wants to add something to it. I will be glad to have your views.

Mr. LENT. You are, of course, correct, Mr. Chairman, in that if I built a vacuum cleaner I cannot stop an individual from copying that vacuum cleaner unless he uses my name and sells it. But if I were in the position of Mr. Hahn—and let me state that it is standard practice for companies like Mr. Hahn's to submit to the military or to a prime contractor an item on a no-cost loan evaluation basis. He does this in good faith.

Mr. MULTER. Without contract?

Mr. LENT. Yes, without contract, and the military accepts it, and normally they accept it in good faith.

Now, his only recourse, of course, if you took the example that you gave, and he submitted such a thing to Boeing and they copied it and produced it themselves, I am sure that Boeing would never get another contribution from the Airborne Research & Development Co.

In other words, you have no legal redress, Mr. Chairman, but you certainly have a choice—in that you are not forced to do business under this set of ethics.

I would say to you that this is a very limited situation, where a prime contractor would copy something.

Mr. HAHN. That has never happened.

Mr. MULTER. I would like to see the Government follow the ethics, the best ethics—that which is recognized as the best and highest ethics and morality. It surely should set the example; but again, I don't know how we can make them do that. When we get into a situation where the law permits them to do something, doesn't prohibit them from doing something, what do they do? They decide that ethics dictate that we should not reproduce this drawing, or ask others to produce this for us at less money, but we will follow the law, which says that we must get the lowest price for this item.

What does the Government man do then?

Mr. LENT. I think, Mr. Chairman, if you throw away all the ethics and morality of business that you are going to end up with a jungle instead of an orderly relationship between the military and the industry. I don't think it is to the advantage of the military to violate these business practices that have been in existence for years.

I don't think there is any law that forces them to do this, Mr. Chairman. I think they are protected by law in case they do. I think we are not——

Mr. MULTER. Let's look at it this way for a moment. Let's take the instance of these very valves. They are submitted to the Government Procurement Agency, and then somebody there writes up a specification so as to follow the law and calls for advertised bids, and they advertise for bids.

Somebody else comes in with the identical valve to bid on and produce this identical valve Mr. Hahn's company has invented and developed, but hasn't patented, and the procurement officer has a choice. He knows Hahn's valve was submitted to them, tested by them, found to be just what they need. Hahn is second high bidder, and the other fellow who has stolen his idea is the lowest bidder.

What is the procurement officer going to do? As a matter of law, he must give it to the lowest bidder.

Mr. LENT. In that situation, he probably would.

But the morality of it goes back to the fact that here on an unsolicited basis these people spent their own money to develop a product which the Air Force desperately needed, and then, after they received it, after they tested it and found it satisfactory, then, for various reasons, they write a performance specification on the information that they got from that test and then placed it out to bid.

It is our opinion that this is wrong to begin with, that they would use the information that was given to them on an unsolicited basis to form the basis of a request for invitation. But what is even worse, Mr. Chairman, is that when an organization comes in like this, and I think that you will find it in Mr. Hahn's second example, where he came in with a valve which they found to be fully satisfactory and worked completely, and then they used this valve as the basis for a research and development expenditure to develop a product which was identical to it.

Now, this, in my opinion, is a total waste of R. & D. dollars, and violates the intent of Congress on research and development appropriations.

Mr. MULTER. I think there you are absolutely right, but there I think you are dealing with bad administration. Whoever did that should certainly never try to develop all over again to get to the very same point where this man already was without any cost to the Government.

I don't think that is policy; I think that is a matter of personnel.

Mr. LENT. This happens quite frequently. I cannot dispute what you said about the legal sense of this, Mr. Chairman. It is again, I think, a matter of business practice.

Mr. MULTER. What will we do about this? Do you suggest we write this business practice into the law? Because if we don't write it into the law, no procurement officer is going to dare stand up against

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the Appropriations Committee and say, "Look, I had to take it from this man and pay him more money. He brought it to us first."

What would the taxpayer say? Never mind the Appropriations Committee. What would the taxpayer say to the procurement officer who pays you more money for that which you developed and which, in good conscience, you are entitled to have, you are entitled to fix the price, it is yours—and somebody else comes along and you have no patent—somebody else comes along and offers it for less money, identical product, doing the identical job. What is the taxpayer going to say to the Government procurement officer who pays more money for it?

Mr. LENT. We don't object to this, if someone is capable of this creativity. Then it should be a down and dirty competitive situation.

When somebody is handed our proprietary knowledge and uses this in competition against us, then it is unfair.

Mr. MULTER. I agree with you that it is unfair.

Mr. Hahn did that once, and they wrote, or took your specifications, drawings, and offered for bid, and you went back with the second valve. They did this to you a second time?

Mr. HAHN. That's right.

Mr. MULTER. Are you going to do this again?

Mr. HAHN. No, sir; I have learned my lesson. I don't want to take the alternate course of changing drawings. I think this is a dangerous and hazardous thing to do.

I will go some place else and make a living in the commercial field.

Mr. MULTER. There, too, you are dealing with a matter of personnel. I think the procurement officer who would dare to take a technical item, an item that involves the life and property of the Government and of its people and modify it so as to endanger life and limb and possibly bring about the destruction of property, that fellow ought to have his head handed to him.

Mr. HAHN. He is not modifying the figure; this is what he can do. This is as it is written now. He can take our drawings and give them to any number of companies, capable or not capable. If they have machinery, or what have you, that is.

But they could not have the technical knowledge that goes with it.

Mr. MULTER. What we on the committee would like to have, for the benefit of the entire Congress, is the suggestions from you gentlemen as to what can be done, or what should be done to remedy this situation.

Mr. HAHN. I think we are in process of drafting up a suggested method of rewriting the various phases of this regulation.

Mr. SMITH. Just a couple of questions to see if I understand this correctly.

Talking about the one example, now, and it went out on a research and development contract, it seems to me one of the main points, if I understand it correctly, is that the Government is still without this particular female liquid oxygen valve, even though you are in a position to deliver that product to them at this time.

Mr. HAHN. I have been since 1958.

Mr. SMITH. They still don't have it?

Mr. HAHN. They do not.

Mr. SMITH. With time and the urgency being the essence of our scientific program now, it doesn't make sense to me that this would happen; can you explain why it takes place, or do you have any idea?

Mr. HAHN. The only reasoning I could put to it, Congressman, is this: That evidently the intent of initiating an R. & D. program without the completion of our program, would be to insure that the military would own the entire rights to the item. In this way they could put out detailed drawings to industry, any number of manufacturers or machine shops across the Nation, and get a competitive quotation on the manufacturing of the detailed parts and the final assembly. This is merely a way of circumventing a right that we may have to the proprietary nature of our valve.

Mr. SMITH. In the one instance when you came along at a particular time and asked for the rights-in-data clause, it is my understanding that you were told that you should have submitted that prior to the award.

Mr. HAHN. Yes. In this letter from AMC, they stated that inasmuch as no exception was taken to the rights-in-data clause prior to the time of the award, that the contract terms must speak for themselves.

Mr. SMITH. In the next instance, when you followed what you learned in that particular instance, and requested it, or decided to rely upon it prior to the award, then you were turned down, and the next higher bid was accepted, because your bid was thrown out as being nonresponsive because you did, at that time, attempt to follow their previous advice.

Am I correct?

Mr. HAHN. That's correct, sir.

Mr. SMITH. Am I correct that you stated that the Air Force requested the proprietary data to your product, even though they were procuring on advertised bid?

Mr. HAHN. That's correct; yes, sir.

Mr. SMITH. You are certain of that?

Mr. HAHN. I am positive of that. I have documents which I wish to submit as addendum to my testimony, and I ask that they be made part of the record.

Mr. SMITH. Mr. Chairman, if I am correct, it seems to me the regulations state that proprietary data is not required on advertised bids. I don't know whether I am right on that, but I think that is something that the committee should be aware of.

Mr. HAHN. I will be glad to document for you at least a dozen cases.

(The information referred to appears on p. 55.)

Mr. SMITH. Who signed these letters from AMC? Could we have copies of these letters to put in the record?

Mr. HAHN. Yes, sir; I have them with me, and I would like to submit them for the record.

Mr. SMITH. I suggest, Mr. Chairman, that we might place them in the record.

Mr. MULTER. I suggest they be filed with the committee, and then the staff can summarize them and put only the necessary data into the record, so as not to make our record unduly cumbersome with a lot of information which may well be outside the purview of our hearing.

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Mr. HAHN. Sir, to answer your question, one of the pieces of correspondence is signed by K. E. Swanson, Acting Chief, Mechanical Equipment Branch, Accessories Division, Directorate of Equipment and Services.

On the correspondence which threw out our invitation for bids as nonresponsive, that was signed by a colonel, USAF, Columbus E. Tootle, Chief, Accessories Division, Directorate of Equipment and Services.

Mr. SMITH. Mr. Chairman, I would like to make one further comment, that I think Mr. Hahn's testimony is certainly excellent, and I commend him for his courage and integrity in coming to us and giving specific instances.

I have not found any specific instances in other hearings which I have read on this subject. I certainly hope that it doesn't in any way hurt your business.

Mr. HAHN. I am sure that it won't. I feel very pleased.

Mr. MULTER. I hope you can return tomorrow, Mr. Hahn.

Do you plan on being here tomorrow?

Mr. HAHN. Yes, sir.

Mr. MULTER. I do hope so, because I believe counsel has additional questions he wants to ask you to develop the case further.

(Air Force comments on Mr. Hahn's testimony appear in app. No. 6, enclosure B, on p. 188.)

We will have to recess at this time. We are going to meet tomorrow in room 1301. That is the Banking and Currency Committee room, in the New House Office Building, at 10 o'clock.

We will try to sit tomorrow morning and tomorrow afternoon, if we get permission of the House to do so in the afternoon.

And on Thursday, I am informed we will meet in room 1302, which is the hearing room of the Public Works Committee.

The Small Business Committee gets what is left over.

The committee will stand in recess.

(Whereupon, at 12:05 p.m., the subcommittee recessed, to reconvene at 10 a.m., Wednesday, March 30, 1960.)

# PROPRIETARY RIGHTS AND DATA

**WEDNESDAY, MARCH 30, 1960**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE NO. 2 ON SMALL BUSINESS AND
GOVERNMENT PROCUREMENT OF THE SELECT
COMMITTEE ON SMALL BUSINESS,
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 10:10 a.m. in room 1301, New House Office Building, Hon. Abraham J. Multer (chairman of the subcommittee) presiding.

Present: Representatives Multer, Smith of California, and Robison.

Also present: Irving Maness, subcommittee counsel; Katherine C. Blackburn, research analyst, Marie M. Stewart, clerk, and Victor P. Dalmas, adviser to the minority members.

Mr. MULTER. Good morning, gentlemen. The hearing will come to order. We will resume where we left off yesterday with Mr. Hahn. I think Mr. Maness has some questions.

## TESTIMONY OF ROBERT R. LENT, VICE PRESIDENT, RIGGS NUCLEONICS CORP., BURBANK, CALIF., AND RICHARD HAHN, PRESIDENT, AIRBORNE RESEARCH & DEVELOPMENT CORP., SUN VALLEY, CALIF.—Resumed

Mr. LENT. Mr. Chairman, your question yesterday about the Boeing situation that if we were to submit a product to Boeing would we still be entitled to proprietary rights, on that I feel that we sort of muffed that question yeserday in that we were not prepared to answer you on the legal sense and we did a little homework last night and so I would like to try to give you a more comprehensive answer.

We agree with your statement that if we were to submit the product to Boeing without any comments on it and Boeing reproduced it that we would not be entitled to redress, but if we were to furnish this product and in our letter of transmittal indicated that it was a confidential disclosure and put a proprietary legend on the drawings which accompanied those drawings to Boeing then of course we believe that we would be entitled to redress in the court.

I think that you have hit on the key question on this whole misunderstanding, and that is what is your right under the common law. The military maintains that if an item, on which there is a proprietary claim, can be reverse engineered then they are relieved of the responsibility of so doing and therefore have a right to demand knowledge that could be obtained through reverse engineering. I should like to read for you from ASPR 9-201(b) the definition of proprietary data:

"Proprietary data" means data providing information concerning the details of a contractor's secrets of manufacture, such as may be contained in but not limited to its manufactured methods or processes, treatment, and chemical composition of materials, plant layouts and tooling, to the extent that such informa-



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tion is not disclosed by inspection or analysis of the product itself and to the extent that the contractor has protected such information from unrestricted use by others.

Now in actual practice, instead of saying "is not disclosed," it is being interpreted to mean "or could not be disclosed." I think that any industry guest here will testify that at Wright Field in their procedure of identifying proprietary rights they use the design drawings. If there is anything in these drawings which they believe could be reverse engineered then they say that the claim of proprietary rights on this item is not reasonable because it could be determined by examination and by using the law of probabilities. This is our bone of contention. We do not believe this legal, correct, or ethical.

I would like to read to you from a statement which is taken from the procurement presentation to the Procurement Subcommittee of the Committee on Armed Services of the U.S. Senate and it was given by the Defense Department. I would like to read the pertinent paragraph on this subject:

It might be asked whether the best way to develop a Government design specification might not be to "reverse engineer" the developer's available design. We occasionally do this on relatively simple devices where there is evidence that the prices we are being charged are unreasonable. Apart from the discouraging impact of such a practice on private research and development work and resulting private invention and innovation, reverse engineering is not easy to do. Where complicated equipment with precise tolerances, specialized treatment of materials, or critical manufacturing procedures, are involved, it is very difficult, time consuming, and sometimes even impossible. Here, again, many man-hours of scarce technical talent would be expended merely to duplicate development results which already have been achieved.

Now I point that out: that this is the policy position of the Defense Department but this is not the policy of people down below this D.O.D. level. Now, as for the point of law. Again I remind you that I am not qualified to discuss the law and so if this does not settle the issue I am dead and we will have to come back with other information. I should like to read to you a case on this subject which is *Schreyer* v. *Casco Products Corp.* (88 PQ 515, Conn. (1951); mod. 190 F. 2d 921, 90 PQ 271, OCA 2 (1951)). I quote from this particular case:

The Restatement of Torts, in defining trade secrets, states that it "may consist of any formula, pattern, device, or compilation of information which is used in one's business, and that gives him an opportunity to obtain advantage over competitors who do not know or use it."

I would like to point out, Mr. Chairman, that that is a radical departure from the definition of proprietary data that is used by the military in ASPR 9, section 2. Now to continue with this citation:

The blueprints, blanks, lists of suppliers, cost data and information on manufacturing technique would seem to fall within the trade secret classification. It is true that matters which are completely disclosed by goods on the market are not trade secrets.

And they quote some cases on that.

Continuing with the citation,

Relying on this proposition, the defendants contend that all the information revealed by the blueprints and blanks could have been ascertained by careful analysis of the Steam-O-Matic iron which was obtainable on the market. By measuring the component parts, they say, blueprints could have been prepared and the most efficient productive method deduced. The fact remains, however, that the defendants took unwarranted advantage of the confidence

**which the Schreyers reposed in them and obtained the desired knowledge without the expenditure of any effort and ingenuity which the experimental analysis of the model on the market would have required. Such an advantage obtained through breach of confidence is morally reprehensible and a proper subject for legal redress.**

Now I think this is our position: that the military's interpretation that if the information can be ascertained it eliminates the obligation to so do, is not legally sound.

Now another point that you brought up, Mr. Chairman, was in reference to patent and proprietary data. In other words, I think your statement was that we were protected on our proprietary rights or in our patents but we would not be so on proprietary items.

Mr. MULTER. There is one reservation. There is a difference between your statement thus far and my general statement yesterday, and that is the reason why we have lawsuits. No two lawyers ever agree and the difference of opinion is reconciled by the courts. There is no public dedication if you obtain a patent. When you patent your idea, you preserve your rights and that is your reservation by law of your proprietary rights but here is a case of trying to avoid public dedication and yet avoiding patenting. By failing to indicate you have proprietary rights, you don't put anybody on notice. You submit your blueprints and specifications and if you don't give them notice, together with the delivery of the items or blueprints, then they have a right to assume that there has been a dedication to the public.

Mr. LENT. Yes.

Mr. MULTER. That is the difference.

Mr. LENT. And we agree with that. However I must point out to you, Mr. Chairman, that ASPR 9, section 2 does not differentiate between the patent and proprietary data. They demand the same know-how for a patented product as they would for a proprietary product.

Now we would trust them not to disclose such a thing and I don't believe that any military man that I have ever known would deliberately so do, but I point out to you that they are almost forced to do so by other agencies within the Government who conclude that such a thing is in the best interest of the Government.

May I quote to you from a General Accounting Office decision of October 6, 1958, in a letter to the Secretary of the Air Force and signed by Mr. Campbell. I will excerpt one part—

**But we believe that the armed services have no authority to dispense with the requirements of formal advertising solely on the ground that such procedure would tend to impair the integrity of the patent system.**

Now here is a situation in which the General Accounting Office is saying in essence that you should not permit a potential patent infringement to deter you from going to the lowest bidder. In many instances the military is forced into patent infringements. Now it is true that we have recourse through the Court of Claims, but I am sure that you are fully aware that such a procedure is a very lengthy one and a very expensive one and we do not believe that we should be coerced into the position of having to resort to this legal redress.

That concludes my comments on that particular question, Mr. Chairman.

Mr. MULTER. Your suggestion is that the law needs a change as to this prohibition with respect to Government procurement, and to pro-

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hibit them from using a patented item. The law presently permits the successful bidder to invade the patent rights to the extent of reproducing the item for the Government, leaving you the recourse of going to the Court of Claims for damages.

Mr. LENT. We believe that law is a necessary law for times of emergency. As I pointed out yesterday we do not believe that that law should be an excuse for the violation of patents promiscuously.

Mr. MULTER. Where would we draw the line? In what way should we change the law?

Mr. LENT. It was my understanding that this was determined by a state of emergency in which we were either at war or we were in a position of impending war.

Mr. MULTER. War needs further definition. Hot war or cold war? Are we in a state of emergency today or are we in a state of emergency only when producing missiles and things of that kind to keep up with the Communist threat?

Mr. LENT. In my opinion we are at war today in the field of technology. I think this is a very, very important fact in our discussions here today. We need all the creative endeavor of all our people at this point in our history and if there are practices, procedures, and laws which discourage inventiveness I think we must correct them.

Mr. MULTER. When it comes to so-called household items that the Government buys I don't think they need any protection on that score. From the preliminary statements that have been submitted, I think most of them follow the pattern that you have already set where we are dealing in the main with the Defense Department and other agencies that are dealing with national security; is that not right?

Mr. LENT. That is correct.

Mr. MULTER. In that sphere what would you suggest that we do? Do you suggest that the law be changed? How can we get to the root of the trouble and do something about it in that sphere of activity?

Mr. LENT. I think this is a question of application of the law. It is not a question of change in the law. I think it is essential for us to have the legal capability to take an action if it is required because of emergency conditions. However, I don't think these legal tools should be flagrantly abused. I think an exception from the patent system should be very carefully studied and only done if it is honestly determined that it is in the best interests of all the people of the United States. We should not take away a man's property rights without good cause. We ask for proper interpretation, and we believe that the General Accounting Office, in many instances, has been too liberal in its decisions which favor the Government.

Mr. MULTER. I think I can speak not only for the members of this committee but the whole Congress when I say that we are sympathetic to the problem, and we are all very happy to have you present it the way you do, recognizing that the national security and national defense must come first. How are we going to approach the problem to try to implement our sympathetic views? As of this moment I do not see any answer to it. Maybe it will come to us before we close these hearings.

Mr. LENT. I did not want to get on this kick of ethics or morals, because you cannot hang your hat legally on ethical or moral situations, but I do believe, Mr. Chairman, it is obvious that if we are to

work compatibly with the Military Establishment, and if this marriage is to work, then we must have a marriage of respect and of trust. If occurrences take place which cause us to distrust the action of the Military Establishment, then I think that only ill can result.

I think that one of the problems that we have is that it is one thing to promulgate policy, but it is another thing to carry it out. In the military, I think that the old adage that no organization is better than its commander, and that the commander has the responsibility from the top to the bottom, is pretty sound and, therefore, I believe that the major problem that we have is a lack of review at the policy level of what is actually going on in practice. I would submit that diligent action on the part of the military policy people in policing the activities of their subordinates would eliminate most of these problems, and I repeat that I do not believe that there is cause for a law to be entered into the books to correct this situation.

Mr. MANESS. Mr. Hahn, have you ever made any claim or demand on the Air Force on account of the use of the drawings?

Mr. HAHN. No, we have not.

Mr. MANESS. Is your valve trademarked?

Mr. HAHN. Yes, it was.

Mr. MANESS. Are the other valve drawings in your statement trademarked? I ask if you know that of your own knowledge?

Mr. HAHN. I believe that one of them is and the other possibly is not.

Mr. MANESS. Did you ever file a complaint with the Air Force about Northrop's action against you?

Mr. HAHN. No, I have not.

Mr. MANESS. Have you ever filed a claim with the General Accounting Office or the Small Business Committee?

Mr. HAHN. No, I have not.

Mr. MULTER. Thank you very much. Is there anything more you want to add?

Mr. HAHN. Yes. I would like to answer Mr. Smith's request to submit additional data concerning the advertised invitation for bid which required the rights and data clause. A hurried check with my office last night produced the following IFB's with their dates, which include the rights and data clause:

AF–33–600–58–76, dated November 14, 1957.
AF–33–600–60–43, dated November 17, 1959.
AF–33–600–60–50, dated November 6, 1959.
AF–33–600–60–65, dated November 19, 1958.
AF–33–600–60–184, dated March 18, 1960.
AF–33–600–59–154, dated February 13, 1959.
AF–33–600–59–157, dated April 1, 1959.
AF–34–601–60–, dated March 16, 1960.
AF–34–601–206, dated March 18, 1960.

Mr. MULTER. Thank you, sir.

Mr. LENT. Mr. Chairman, I would like to change the order of testimony because Mr. Marcheschi of Air Logistics has to leave this afternoon and we would like your permission to have him testify at this time.

Mr. MULTER. He may come up now.

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## TESTIMONY OF HENRY MARCHESCHI, ASSISTANT TO THE VICE PRESIDENT, CUSTOMER RELATIONS AND CONTRACTS, AIR LOGISTICS, INC., PASADENA, CALIF.

Mr. MARCHESCHI. I am Henry Marcheschi——

Mr. MULTER. Will you please give your full name and residence address and your business association?

Mr. MARCHESCHI. I am employed by Air Logistics, Inc., in the capacity of assistant to the vice president in charge of customer relations and contracts. I live at 3745 Startouch Drive, Pasadena, Calif. Air Logistics Corp. is a private developer and manufacturer of aircraft, and missile ground support equipment employing 298 employees.

Mr. Chairman and gentlemen of the committee, prior to proceeding with our testimony I would like to state our beliefs regarding the pertinency of advertised procurement to the problem of proprietary rights. We will be the first to agree that the problem of proprietary rights is indeed a complex one and that introduction into these hearings of the equally complex problem of advertised versus negotiated procurement as an argument in itself would not materially assist the constructive efforts of the committee in solving the proprietary rights problem.

However, Mr. Chairman, after being exposed to the problem of proprietary rights for the past 5 years we are of the sincere belief that the well-meant attempts to increase the amount of advertised procurement, especially into areas of procurement where it cannot possibly, in our opinion, achieve its beneficial objectives or results, is one of the primary causes of the proprietary rights problem. Accordingly, Mr. Chairman, we would like in our testimony to deal with what we believe to be a cause-and-effect relationship between increased advertised procurement and proprietary rights problems. We wish to do so not because we are against advertised procurement per se but because we sincerely feel that recognition of what we believe to be one of the primary causes of the proprietary rights problem is essential in seeking a solution. Consequently, Mr. Chairman, with the hope that our testimony will be interpreted as a sincere attempt to clarify the proprietary rights problem rather than as an attempt to inject issues foreign to the scope of the present hearings, I request your kind permission to proceed with our testimony.

I would like to begin by distinguishing between small business and technical small business as it applies to Government procurement.

We do not necessarily feel that small business should have special treatment merely because it is small. It is generally recognized, however, that many highly qualified technical people prefer the environment of a relatively small company because of the speed with which developments can be conducted and the improved climate for creative thinking.

In the light of recent history no one can claim that the 8,000-man engineering departments of the prime weapon producers have a complete monopoly on ingenuity. In fact, many feel that technically qualified small business will continue to be the original source of many of the scientific breakthroughs, certainly those breakthroughs

in the field of components and subsystems whose critical importance to the missile and weapon business need not be emphasized.

There is no doubt in the minds of those close to current weapon developments that the recognition and enhancement of the creative role of technical small business is a matter of national survival, not just a matter of improving the business climate for one segment of industry.

The essence of our testimony can therefore best be expressed as follows:

"Are today's procurement practices aiding and fostering this technically qualified small business so that it can make a maximum contribution to the defense effort?"

The answer is, unfortunately, "No."

Considering that our need for technical ingenuity is greater today than at any time in our history, we recognize we are making a serious claim when we say that small technical business is rapidly getting out of an act in which we all know it must remain. We are convinced that this problem exists primarily because of a comparatively recent and little-known situation, namely, that as the proprietary rights of small business have become less and less respected, incentive to conduct military development at private expense has virtually disappeared.

Strangely enough there is indication in our opinion that this "proprietary rights" problem is being caused primarily by the well-meant congressional pressure being exerted on the Department of Defense to increase the amount of advertised procurement.

Why is the problem of proprietary rights being caused by increased emphasis on advertised procurement?

We believe that it is because the Department of Defense, being unable to increase advertised procurement within the area of the basic weapon systems, has been forced to turn to the apparently less complex components and subsystems developed by small business. The fact that these components and subsystems in many cases are equally complex technically and are changing as rapidly as the prime weapons themselves is less well known, and is the heart of the problem.

Let us examine this thing called advertised procurement. In order to conduct advertised procurement, the Government must base the procurement on either manufacturing drawings or a specification. Where do these drawings come from? Where do the specifications originate?

The infringement of proprietary rights is occurring when the Government forces acquisition of these drawings on privately funded developments, or this failing, proceeds to write a detailed specification around an existing product solely so it can be procured by advertising.

We do not question the use of advertised procurement to specification where a proven commercially available standard article is desired or where completely service-proven drawings are available which have been acquired through Government funded developments.

We do question, however, advertised procurement at the expense of infringing the proprietary rights of small business.

We believe the experience of our company in regard to proprietary rights and advertised procurement is an excellent example of the problem that we have cited and the consequences resulting therefrom.

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In early 1955, Air Logistics initiated a company funded research and development program with the intent of offering to the military services, on an off-the-shelf basis, an interrelated system of ground support equipment which could be standardized for use on the great majority of existing and planned aircraft and missile programs. The fundamental objective was to develop a basic family of identical standard items which could be adapted to many different weapon systems and could also be used to perform a multitude of functions on any one weapon system. In short, gentlemen, we were talking about standardization.

A detailed breakdown of the marked economic and operational advantages which were inherent in the system is provided in a report titled "The Interweapon Systems Concept," which has previously been distributed to the members of the committee.

The result of our initial R. & D. effort was a concept which featured a new and very unique approach to solving the standardization problem. With the aid of a flip chart I would like at this point to spend just a few moments describing the concept and the various elements of the system as they eventually evolved.

Our proposals were met with great enthusiasm by both the Air Force and Navy. As a result, our company proceeded posthaste to turn these unsolicited proposals into hardware—hardware for acceptance testing and demonstration. The development and prototype schedules were conducted at breakneck speed—for we, and the services, were fully aware that unless the system could be demonstrated and accepted as soon as possible it would be necessary to procure special-purpose, nonstandard support equipment proposed by the prime aircraft manufacturers, at a great increase in overall costs.

Within 6 months from the date of the system's proposal to the Air Force, two of the elements were successfully demonstrated and passed acceptance tests. In only 7 months following initial proposals, the basic system had been demonstrated and accepted on a total of seven different weapon systems.

Through the period of 1955–56, with the full cooperation and assistance of the Air Force and Navy, the system was applied to program after program. This followed intensive field engineering, development, and demonstration effort consisting of adapting each program's new and special requirements to the same basic support system. A total of 112 separate demonstrations were conducted at Air Force bases and prime manufacturers all over the country.

During the course of development, numerous patents were applied for and allowed, indicating considerable uniqueness and inventive nature in the equipment.

What evolved, in the words of one high ranking Air Force officer was, and we quote—

> the most successful standardization effort on record in the field of ground-support equipment.

By mid-1957 the system had been approved for use on a total of 28 different and distinct weapons systems, at an estimated total potential annual savings of over $77 million due to standardization. Should you be interested in a breakdown of these savings, they are detailed in the "Inter-Weapon Systems Concept" report mentioned previously.

We are extremely proud of this accomplishment.

We are equally proud of the fact that the entire cost of the research, development, demonstration, and acceptance program was paid for entirely with company funds, with absolutely no direct expense or risk incurred by the Department of Defense.

I have taken the time to briefly acquaint you with the development history of the "Air Logistics Inter-Weapon Ground Support System" for one and only one reason—to clearly illustrate the striking and beneficial results that can be accomplished by an enterprising, creative company with new ideas and the courage to back up these ideas with its own money.

It is indeed a tragedy that the present procurement environment no longer permits a company to perform in the free enterprise manner which I have outlined. Based on our own experience, I would like to briefly explain why we feel such a free enterprise approach is no longer possible.

Having developed at private expense the long sought "better mousetrap," the company was immediately faced with the request on the part of the military services to release our proprietary design drawings to permit possible manufacture by other concerns who had spent neither the time, effort, nor money to develop the equipment.

Intensive investigation conducted at all levels of the military procurement agencies, including the Department of Defense, indicated beyond doubt that although everyone was sympathetic to our pleas, the request for release of manufacturing rights was dictated by one and only one requirement—the well meant but damaging requirement to procure the equipment by advertised procurement—thereby satisfying, in part, the ever mounting congressional pressure to decrease the amount of negotiated purchases.

We, naturally, have no argument with the inherent rights of the Government to acquire manufacturing drawings for purposes of advertised procurement on those contracts where the Government has paid for the development.

Acquisition of such rights on privately developed, patented proprietary articles, however, is in direct conflict with the provisions of ASPR 9–202.3 which states that the Department of Defense will honor the proprietary data of an item developed at private expense in order to foster private development of items having military usefulness and further will require such data only where other sources cannot otherwise be established.

In response to the request for release of manufacturing drawings we counterproposed to license other reputable manufacturers to produce the equipment, explaining that we did not believe release of manufacturing rights for advertised procurement would be to the best interest of either Air Logistics or the Government because of the following reasons:

1. Having invested considerable company funds at considerable risk, we felt entitled to recover this investment through production at reasonable profit in accordance with standard business practice and the principles of free enterprise. If this could not be accomplished, it would remove all incentive to continue company funded development efforts.

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2. Of equal concern was our sincere belief that in order to maintain quality, integrity of product, further the application of the system to the greatest number of weapon systems, and maintain the critical interrelationship between the various elements of the system, it was advisable for a designated concern to maintain continuing engineering cognizance over the complete system.

Unable to accept this proposal because of what we believe to be the almost mandatory requirement to increase the amount of advertised procurement, both the Air Force and Navy made a far reaching and most serious decision—specifications would be written around all Air Logistics equipment for use in advertised procurement. Utilizing detail design drawings which had been furnished for evaluation and maintenance, detailed design specifications were written on each and every element of the system for use in advertised procurement.

Even more damaging, the services further adopted a policy of not granting engineering approval on any items subsequently proposed unless they concurrently prepared design specifications for advertised procurement.

Facing loss of the unrecovered portion of company incurred development expense, and disheartened by the deterioration of all the advantages of standardization that would be totally obliterated by advertised procurement to a specification rather than to service proven drawings, we reluctantly in early 1958 made the following proposal to the Government.

Air Logistics would grant manufacturing rights on all elements of the system concurrent with procurement of reasonable quantities of each element over which the remaining unamortized development and product improvement expense could be recovered.

In subsequent production contracts wherein negotiated procurement was dictated by urgency of the requirement, Air Logistics did, as proposed, release manufacturing rights to the Government on all items procured. At this time only one major element of the system remains proprietary to Air Logistics—the model 4100 trailer.

Subsequent procurement action on this very model 4100 trailer, however, is worthy of further comment for it provides a classic example of what can and is happening as a result of the "advertised procurement to a specification" philosophy. A summary of this action, and its results, is as follows:

Facing urgent requirements in support of Strategic Air Command, the Air Force released in December of 1958 an invitation for bid covering 106 model 4100 trailers. The model 4100 trailer is a relatively complex, hydraulically actuated piece of equipment performing the critical function of installing engines, atomic weapons, fuel tanks, and similar items on the majority of SAC's aircraft and missiles. At the time of the invitation, over 200 trailers were already in service. The procurement was based solely on the specification and contained no requirement for evaluation of bidders based on engineering proposals. Consequently, even if successful, the procurement would create an entirely new item to perform the same function as something already in the inventory—thereby causing all the operational advantages and cost savings attendant to standardization to be lost. Air Logistics, in a letter to the procuring agency, again reiterated its willing-

ness to release manufacturing drawings as part of a production contract in the interest of maintaining standardization with the articles already in the inventory. We were unofficially advised such action was not possible since it was mandatory that the trailer be procured by advertising.

The response to the invitation is indeed significant. As indicated on this chart, the bids ranged in price from $1,121 to $13,500, with an even price spread in between. This can only indicate that among 15 bidders, there existed 15 different and widely diversified opinions of what had to be developed and produced. The specification, as specifications go, was most comprehensive and well prepared. As you will note, the bids ranged from a low bid of $1,121 to a high bid of $13,500, a ratio of better than 10 to 1 between the low bidder and the high bidder.

After the two low bidders either withdrew or were dropped from the competition the contract was awarded to bidder C. As of December 1959, or a full year following release of the IFB, contractor C was found in default due to failure to make deliveries. It is to be noted that his bid, based on our past experience, was not even sufficient to cover the cost of raw materials. For the benefit of people in the audience who cannot see the chart, Air Logistics' bid was in the median range or almost exactly in the middle of the bid spread.

At this time, 15 months following release of the initial IFB, it is our understanding that the Air Force is again considering procurement of the model 4100 trailer to a specification rather than to our service proven drawings. It is reasonable to assume that such action will probably result in a recurrence of the consequences incurred in the original procurement, which could conceivably delay delivery for another year.

### EFFECTS OF THE PROCUREMENT ENVIRONMENT

What has been the effect of this procurement environment which demands proprietary data on private developments so that procurement may be conducted on an advertised basis?

First and foremost, it has forced a drastic and near total reduction in company funded developments on military products. The privately developed support system I previously described—which, because of its timely availablity and uniqueness made possible marked operational and economical advantages to the tune of millions of dollars per year, can never happen again.

We are currently holding in suspense numerous developments which we believe would satisfy urgent military requirements and result in substantial savings. Among these are the following:

(*a*) A standardized cargo handling and loading system for all existing and programed cargo aircraft. Following review of our extensive engineering studies we were told by the Air Force that an urgent requirement existed for such a system.

(*b*) A jet engine sound suppressor of advanced design which would permit solution of the critical physiological and public relations problems being encountered due to the objectionable noise created by late model high thrust jet engines.

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(*c*) A new standardized interrelated system of equipment specifically adapted to the requirement of the family of lightweight engines about to be introduced into Air Force and Navy inventory.

(*d*) Application of a newly created 15,000-pound capacity system to the support equipment requirements of the new solid propellant missiles.

In each case, we would be more than willing to invest company funds to not only develop, but expeditiously produce such equipment and offer it to the military on an "off-the-shelf" basis if we had but a reasonable chance of recovering our investment and making a reasonable profit.

Our experience on new products offered in the past 3 years has been the moment we demonstrate a new article, developed at company expense and have it accepted, the military services proceed to write a detailed specification around the article for advertised procurement.

Gentlemen, I trust you will understand that under such ground rules all companies will find it eventually no longer possible to spend company money to analyze a need, design a solution, build it, test it, prove it out, modify it, tool it, offer it off the shelf to the military, and have it accepted—only to have the product become the object of carefully copied, detailed specifications that are turned over to other companies who do not have to incur any development or qualifying expense to participate in the bid.

Such ground rules have taken away all incentive to risk company money on development of military products. As a consequence, our company—with broad military experience at all levels of its management and operating personnel—is rapidly being forced much to our dismay, to concentrate its future development efforts exclusively in the commercial field.

The real tragedy, gentlemen, is not our own individual case, but the fact that we have reason to believe that many companies of similar size have already called a complete halt to all company-funded military efforts because of the proprietary rights problems.

No, gentlemen, despite glowing preambles to the procurement regulations which would lead us to believe that private development should be encouraged and fostered, such development—at least from a small business standpoint—is virtually dead. And with it is dead the free enterprise philosophy which has repeatedly demonstrated its superior capability to produce the best possible equipment at the lowest possible cost.

A second effect of the procurement environment is the serious harm caused to the using commands due to lack of equipment resulting from delays on advertised contracts. In far too many cases where products are procured by advertising, either to drawings or to a specification, the result is delivery of the equipment—if at all—far beyond the date of the requirement combined with either default or substantial loss on the part of the successful bidder.

What, in our humble opinion, is the solution to these problems? If a solution is to come, we feel it must be based on the following basic fundamentals:

(*a*) A way must be found to allow the small independent developer to recover his initial investment at reasonable profit on privately funded developments. The April 9, 1957, revision of ASPR IX,

part 2, although improved, falls far short of offering any type of relief whatsoever. Proprietary data cannot be defined as secrets of manufacture not disclosed by inspection or analysis of the product itself, for this definition offers absolutely no protection against the evils cited in my testimony.

We suggest that a definition of proprietary data be founded on the basic premise that something exclusively belongs to an individual because he has paid for it, and until he in turn is compensated, no one has the moral or legal right to steal it away.

You may logically say that such a definition would prevent competition. We do not agree. Such a definition would spur other developers to satisfy the same requirement with better and lower cost products, knowing full well that unless they were able to develop a superior article, they would not be able to sell it. This, and only this, is the true form of competition which has been the lifeblood of our American way of life and results in true economy.

(*b*) Advertised procurement should be restricted to that category of requirements which are standard commercially available items or that category on which development has stabilized and completely service-proven manufacturing drawings are available. Better and more complete specifications are not the answer. Advertised procurement of items requiring development based on specifications can only result in costly delays and situations similar to those cited in the case of our model 4100 trailer.

(*c*) The fallacy of advertised procurement as a general panacea to greater small business participation must be recognized by Congress.

Is advertised procurement fostering a shift in defense dollars from the larger primes to small business? Definitely not. All that it is doing is fostering a war among small business itself between those companies who are primarily producers and those who in addition to production have development engineering capabilities.

(*d*) A further fallacy of advertised procurement which must be recognized is the widely held belief that it fosters competition and therefore reduces cost. If the savings in cost are based simply on what the contract is let for, we cannot argue the point. We are certain that there exist thousands of examples, some including our own capacity, where it can be proven that when advertised procurement was used following previous negotiated procurement, there resulted a decrease in price.

On the other hand, as stated in Senator Saltonstall's Senate bill 4294, over 85 percent of advertised procured contracts run into difficulty and wind up costing the Government much more than the original bid. These difficulties are usually accompanied by serious delays upon which it is difficult to put a price tag. For example, what is the dollar value of a grounded B–52 bomber?

And, when lower bids are submitted on advertised procurement rather than on negotiated procurement, is this necessarily indicative that the Government was not getting its dollar's worth on the negotiated contracts?

We do not think so.

Past experience indicates that the apparent savings of advertised procurement are nonexistent in that reputable engineering contractors, when forced to cut their prices to meet the estimates of novices un-

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familiar with stringent military requirements, must eliminate all creative engineering development, and service engineering. This means that the price differentials achieved by advertised procurement merely represent the termination of continued development that can only result in higher costs or reduced readiness at a later date.

In this connection what incentives regarding quality does advertised procurement produce for the successful bidder? Having no responsibility for design or function, the responsibility for quality is confined to drawing or specification compliance. Having received a contract essentially on price alone, the incentive is to build the cheapest possible product that will meet legalistic, rather than long-term, functional requirements. Savings attributed to advertised procurement are often more than offset by heavy losses due to unusable equipment resulting from the lack of incentive that exists where a developing contractor is anxious to improve his reputation and secure repeat orders, by providing high quality and functional performance.

We suggest that one of the greatest lights that could be shed on this problem would be a comprehensive and impartial study of what advertised procurement is really costing the American taxpayer. We think the results would be alarming.

## CONCLUSION

In conclusion, what are we asking for, gentlemen?

All that we ask is reasonable assurance that if we spend our own money to develop the long sought "better mousetrap," and by blood, sweat, tears, and the Grace of God, it, in fact, does turn out to be the better mousetrap, then, in accordance with the principles of free enterprise and fairplay, give us a chance to recover our investment and make a reasonable profit. We ask no more and no less.

I am sure that all technical small business would say "let there be a maximum of competition"—but that this competition be of the free enterprise type, where overall performance and economy are the criteria rather than an artificial comparison of initial cost alone, as in the case of advertised procurements. Wherever technical progress is being made competition must consist of having would-be contractors prove their worth by equaling or excelling the existing proprietary product by taking the same risk and responsibility as the originator, of analyzing the market and providing improved performance, quality, and service.

This is what has always been the "true content" of the free enterprise risk and reward environment. It would be ironic if we were to fail to use our own free enterprise system in building the tools to protect this system.

Most seriously, gentlemen, our defensive posture in the critical years to come can only represent and be dependent upon the sum total of our individual creativeness. A procurement environment that does not permit this natural creativeness to operate to the maximum limit of its capabilities can only produce results far more devastating than the worst conceivable form of Soviet sabotage.

We cannot believe that it is the intent of Congress and the Department of Defense to continue a procurement environment that will

incur these consequences. We know it must be based on misunderstanding.

It is with the hope that we have constructively assisted in elimination of this misunderstanding that we thank you for the opportunity of presenting our testimony.

Mr. MULTER. Thank you, Mr. Marcheschi. You have made a very fine statement. You have pointed up the necessity of protecting the proprietary rights. Your argument so far as urging more negotiated bidding as against advertised bidding is of course more appropriately directed to the Appropriations Committee. I, for one, will sustain the Appropriations Committee's view that there should be more advertising, awards by advertising rather than negotiating. I think there is much too much negotiation now and I intend to make efforts along the line of more advertising rather than more negotiated bidding.

Now, let us take the instance you referred to of the trailer. I think you have a picture of the trailer over there, is that right?

Mr. MARCHESCHI. Yes, Mr. Chairman; this is a picture of the article in question.

Mr. MULTER. Isn't that a trailer which can be substantially duplicated by almost anybody in the trailer business?

Mr. MARCHESCHI. Yes; I would certainly agree with you Mr. Chairman. The trailer is of such design that once the design has been established, any competent manufacturer can produce the trailer.

Mr. MULTER. What special proprietary rights can you claim in that trailer?

Mr. MARCHESCHI. Mr. Chairman, the propriety rights which we feel we can claim in this trailer are certainly dependent on what we define as proprietry rights. If we are to say that the proprietary rights are restricted to secrets of manufacturer that cannot be disclosed by examination of the end product itself, then we would have to admit that there is nothing proprietary about this trailer.

However, we do not agree with that definition. What is proprietary about this trailer is the fact that with our own funds and with our own initiative we have come up with a set of service-proven manufacturing drawings which through actual operation have proved their ability to create an acceptable item. Now the physical act of taking these drawings and turning them over to another producer, however competent he may be, who did have to go through the same investment risk that we did, and who did not have to spend the money we did, we feel is an invasion of our proprietary rights.

Mr. MULTER. Did you develop your trailer specifications for the Air Force or the Defense Department?

Mr. MARCHESCHI. For the Air Force. We have made it a policy in our company, utilizing our own research and development funds, to try to project our thinking into the years to come and have a solution ready to meet a requirement and offer it to the military on an off-the-shelf basis. I would like to define what I mean by an off-the-shelf basis. When we go to the Air Force or the Navy or the Marine Corps with a product or with an actual piece of hardware and say, "Here is an item that we think will do a job for you and will save this much money, et cetera," the services are certainly under no obligation to Air Logistics to say, "Yes; we think this is what we need." The article is

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there under its own merits. And the services have certainly the prerogative to say, as they have done, "Air Logistics, you have missed the boat. This is an article we do not need."

The model 4100 trailer is an article that they did in fact need and accept.

Mr. MULTER. In devoloping this trailer did you have in mind any commercial enterprise which might have a use for the trailers?

Mr. MARCHESCHI. Not as a primary objective, Mr. Chairman. As it turned out I think we were of the opinion that the jet airliners would come into commercial utilization and that the trailer was equally adaptable to the requirements of the airlines as to the requirements of the military. The trailer has been procured by several of the jet airlines to remove and install jet aircraft engines.

Mr. MULTER. In your negotiations with the Air Force in which they were looking to have you submit to them your drawings and specifications so that they could use them in connection with advertised bidding, is there any offer by the Air Force to pay you a reasonable fee for your work in making the drawings and specifications?

Mr. MARCHESCHI. There was very definitely an offer on the part of the Air Force, Mr. Chairman, to pay us for the research and development dollars which we had spent in developing this trailer. Also there was the stipulation that this amount of payment would be dependent upon an audit of what we had actually spent in terms of dollars to engineer and develop only this piece of equipment. I think the point that perhaps Mr. Lent can expand on much more than I is that we had developed the trailer at our own risk and had reached this competitive position entirely with our own resources. We do not feel that the renumeration of only the actual dollars which went into the development of it, is necessarily representative of its worth to Air Logistics. Mr. Lent and I have discussed this point briefly, and it is something that I think is quite pertinent to these hearings. The services are willing to pay for these development costs, but the point is this, does it necessarily follow that the contractor should be willing to give up his proprietary rights with his only right being his development cost?

Mr. MULTER. Suppose you don't give it up and don't negotiate with the Air Force, and somebody else comes along and develops a trailer which will do this job equally well, what is your feeling then?

Mr. MARCHESCHI. Mr. Chairman if someone else comes along and develops a trailer which meets the requirements equally well and on the basis of an evaluation of its performance and its worth, the Air Force or the Navy conclude that it is in their better interest to procure the competitive trailer then all we can say is God speed. Do so. But this has not happened, Mr. Chairman. I think in the commercial application of our product we have a very striking example of what does happen commercially as opposed to what happens in the military procurement. As I mentioned previously this trailer does have application to the commercial jet liners. We don't necessarily want to pat the commercial airline buyers on the back but let me say they are a sharp group of people and they do what we think is a good buying job.

In selling our trailer to the commercial airlines we know of no case where another company has come into the airlines and said "We can build this trailer and we will build it cheaper than Air Logistics. Therefore we would like the contract."

If this had happened I think that the commercial buyer would have said "You go out and build a trailer and then you can come in and if you can demonstrate and prove that it can do a job equal to that done by Air Logistics' trailer and your price is lower then I will certainly procure it from you." But this is the distinction between what is happening commercially in a free enterprise environment and what is happening in military procurement. No one has had to prove their capability to build this trailer before being given an opportunity to participate in the bid.

Mr. MULTER. Suppose in the advertised bid for a trailer such as the one you have developed the advertised bid called for, as they may and invariably do, a trailer, naming your trailer, one made by your company, after listing the specifications added on the words "or equal" and somebody came along with the identical trailer and offered to do it and instead of the beams being two by six by eighteen, and I am taking arbitrary figures, say that they will use beams which are two and a half by seven by eighteen, what then? And theirs is the low bid and theirs is accepted. What then? What rights do you have? What claim if any do you have?

Mr. MARCHESCHI. I think as Mr. Lent has just spoken, we certainly do not question the right of the Government to do that. We do question the right of using our proprietary knowledge either in the form of drawings or in writing detailed design specifications around our item to achieve this end, Mr. Chairman.

Mr. MULTER. Don't we come down to the fact that the most you can claim is to be compensated for your drawings and your specifications when you come forth with an item such as that?

Mr. LENT. May I answer that please, Mr. Chairman?

Mr. MULTER. Yes. I don't mean the cost of reproducing the drawings and the specifications. I mean the fair value of producing the end result.

Mr. LENT. I think that is the bone of contention. Who is going to determine that fair value. Let us assume that Air Logistics is in the position that they can foresee over the next 5-year period a certain volume of business on this product and their return in profits will be such and such an amount. You could hardly expect the military to accept that as a reasonable price.

Mr. MULTER. Because somebody else can come along and do something the equal of this.

Mr. LENT. If they can, then the Air Force should go out and procure it if they can get it cheaper, but we believe that we rightfully should deny the Military Establishment the right to use our drawings to develop that "or equal" and this is what they have done in essence, is to take the drawing and use that as the basis for a specification.

Mr. MULTER. Then it is a matter of compensation.

Mr. LENT. That is correct.

Mr. MULTER. In other words they could take that trailer and put their engineers and draftsmen to work and take it apart piece by piece and make their own drawings, their specifications and maybe during

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the course of taking it apart substitute a pin of one type for another type or possibly put the holes in another place and add some washers and another piece of equipment and they might even improve it.

Mr. LENT. I am sure they could do it, Mr. Chairman, but the question is, What is the best interest? This is not a simplified piece of gear. It looks like a reasonably simple trailer but the hydraulic system and the structural design is quite unique. I am sure to reverse engineer this would be a laborious procedure and a very expensive one. The question is, in other words, To obtain our position is it worth it? I think that you basically have to come down to the fact, How much is this proprietary knowledge worth? And I don't believe that you can fairly compensate them just for the dollars expended. I think that they are entitled to a reasonable amount of profit over the projected life of such a product.

Mr. MULTER. The matter is to determine some formula by which these people can be properly compensated because it is implicit in the free enterprise system that anybody can break that down or any other item but unless an item is patented they have a right to break it down and even if it is patented they have a right to improve it by taking off a gadget and putting on another gadget.

Mr. MARCHESCHI. We are in wholehearted agreement with your statement.

Mr. LENT. We prefer that the Government not take our competitor piece by piece down the path. If some private enterprise wants to go to the trouble and expense of reverse engineering, this they can do, but we don't like to have them given a road map down the path and be shown all the pitfalls. This is something that we do not consider to be fair.

Mr. MULTER. Mr. Robison.

Mr. ROBISON. Was there no patentability of the design of this particular trailer, Mr. Marcheschi?

Mr. MARCHESCHI. Yes, sir; I do not believe I am in error when I say that there are patents that were allowed which applied to this particular piece of equipment. I can assume that your question leads up to the point of why did we not avail ourselves of the protections that are afforded by the patent system? Is that correct?

Mr. ROBISON. That is correct.

Mr. MARCHESCHI. I think a lot of what Mr. Lent said this morning is certainly applicable in our case. We are trying to maintain a company environment where we can continue to do the things which we feel are in the interest not only of our company but of our Government. We do not feel that we would have accomplished anything toward this objective by processing a claim against the Government because they had infringed our patent. I think we would rather spend our money in coming to these hearings and presenting our case in this manner.

Mr. ROBISON. Would you not then be seeking to broaden the definition of proprietary data from what we would understand its original intent to be, that of secrets of manufacture and so forth, to items which might normally have been patentable items? Would you seek to broaden the definition in that way?

Mr. MARCHESCHI. No, we do not believe that a patent on an article has necessarily anything to do with proprietary rights on an article.

We are not saying this is proprietary because it is patented. We are saying we believe it is proprietary because we have spent, at considerable risk, a certain amount of funds to develop the know-how and the means by which to produce this item. We have no claim whatsoever that others cannot go out and do exactly the same thing. Our claim, however, is that you do not enable them to do this by using what was our proprietary data to give them this competitive edge.

Mr. ROBISON. Well, is it data or is it the idea that is the particular problem on this trailer? Is it data you have with respect to its manufacture or the idea of the trailer itself?

Mr. MARCHESCHI. I would say Mr. Congressman that it is not only the idea, it is the know-how that is represented on the drawings that are required to manufacture this item, the manufacturing drawings themselves.

We think that one of the biggest deficiencies in the ASPR today in the area of proprietary rights, is the failure to recognize that a design can be classified as proprietary.

Mr. LENT. I think, Mr. Robison, in further answer to your question, yes, we do desire very much that the terminology contained in the ASPR 9 section 2 be expanded and I would call your attention to the Ordnance Corps Technical Instruction No. 840–3–52 issued by the Department of the Army on December 9, 1952, as

**Information is defined as "any means utilized for conveying intelligence or knowledge including but not limited to reports, drawings, blueprints, technical data, description of manufacture, bills of material, photographs, models, or the like."**

Now I think that if you review the trade secret law you will find a very expansive interpretation of what is a trade secret and we would like ASPR to conform to that. In other words, we do ask that it be expanded, and not just be confined to the secret process.

Mr. MULTER. Mr. Smith.

Mr. SMITH. First I would like to commend Mr. Marcheschi for his excellent statement here today before the committee and it may be that my thinking is a little bit fuzzy altogether on this but if it is, you correct me please. As of the time that you started developing this particular unit, is it reasonable for me to assume that it would have taken a separate unit to move probably each individual type of engine on a different type of airplane? In other words if we had a B–52 or some jet engine would we need a unit to replace models which would be separate in each instance?

Mr. MARCHESCHI. Yes, sir, Mr. Smith, I think on the majority of our weapons systems there exists a requirement to install and remove components, in this particular case jet engines. This particular piece of equipment or its counterpart permitted the services to use the same, identical piece of equipment to do this job on practically all of these weapons systems. We believe that, if such a piece of equipment had not been in existence, had we not developed it and made it available in a timely manner, the consequences would have been that the majority of these weapons systems would have each been supported by different specialized pieces of equipment. Therefore let us say for the purpose of simplification that the services would have had to procure and logistically support 60 different items instead of only 1 or 2.

Mr. SMITH. I recognize that some of these questions might better be asked of the service personnel when they appear, but in other words with your own capital and your own money you developed this unit which could save a great deal of money and could be used for many different operations.

Mr. MARCHESCHI. Yes, sir.

Mr. SMITH. And is my understanding correct that during this elapsed period of time so far as you know no other organization has actually developed a unit which will even today do the same thing?

Mr. MARCHESCHI. No, Congressman Smith, nor at their own expense or on their own initiative. This is exactly the point and I am glad you brought it up. During this period of time that you speak of there was nothing in the world preventing any company that was willing to take the same risk that we did to develop a competive product. The point is that they did not.

Mr. MULTER. I am concerned with one other question. If this unit would perform so satisfactorily and the services had not used it, and maybe it is unfair for me to ask this but I am concerned with whether or not the services had not been negligent in not utilizing available units and not waiting all this time.

Mr. MARCHESCHI. The services have used it, and in retrospect we are not here as complainants on this particular unit itself. It is only very recently that we believe the attempt to procure by this method has perhaps overridden their better judgment. What we are saying is that although we were able to sell this equipment to the services and they did buy it because they were convinced, that it was an advantage to use it, the procurement environment has worsened to such a degree in the past few years that if we were to start all over again to do the same thing we could not possibly spend company money to privately finance its development with such a very, very slight chance, if any, that we could recover our investment.

Mr. SMITH. It seems to me if we resolve ourselves down to paying the company for the amount of money to cover the actual cost when they developed an item, I cannot help but feel that we are going to lose private capital or the desire of private capital to use their know-how and inventiveness and incentive in developing this program. Does that make any sense to you?

Mr. MARCHESCHI. Very much, Congressman Smith. I am by education an engineer and I do not claim that I can speak authoritatively on legal or economic matters; but I think that there is a basic economic law that governs where private capital will be invested. If private capital is to be invested on the basis that if a product is successful, which is possibly one chance out of five, and assuming success, the only return on investment will be the amount of the investment expended in only that one development. I do not believe that the private capital will be invested.

Mr. SMITH. Going a little further and assuming that if you patented this item that the others could not take it and copy it and duplicate it in the same way, you have some initial protection and isn't it true that we are going to lose considerable time over that period to try to protect your right and in an instance like this you were attempting to do something useful to the Government, chances are that it is useful to whoever would use it.

Mr. MARCHESCHI. Yes, very definitely I think that there is a loss of time and very often that time is very essential and when a delay occurs it is very damaging.

Mr. SMITH. Particularly more so in this day and age.

Mr. MARCHESCHI. Yes, very much so.

Mr. SMITH. One other question you mentioned in connection with your commercial business at this time. I wonder if it would be out of order to ask you what is the nature of your commercial business at this time? You don't have to answer that if you don't want to.

Mr. MARCHESCHI. I think it is proper to answer the question. I would rather speak in terms of where our research and development company dollars are going rather than in terms of commercial business. Our research and development efforts are going into products for the commercial market. The nature of these products are in the field of reinforced plastics, and in the field of commercial electronics.

Mr. SMITH. And this particular item now is what we have reference to as an item that is available for anybody that wishes to buy it, the Government or private industry, is that correct?

Mr. MARCHESCHI. Yes, sir.

Mr. SMITH. That is all, Mr. Chairman. Thank you.

Mr. MANESS. In the discussion of the IFB on the trailer 4100 you indicated that the third lowest bidder was granted the award and was defaulted. Were the items purchased after the default from any other company?

Mr. MARCHESCHI. Mr. Maness, we understand that the reprocurement action is currently in the process of taking form. It has not taken place yet.

Mr. MANESS. That is the reprocurement on the old IFB?

Mr. MARCHESCHI. Here again this is our understanding of the situation. It might not be entirely correct. After the default the requirement for the trailers still exists much more urgently than it did a year ago because there has been a year's delay. We understand that after the default the Government in turn is proceeding to establish the means of procurement by which the requirement will be satisfied. They have not yet, to our knowledge, established how they will procure it.

Mr. MANESS. What was the original number of requirements of the old IFB?

Mr. MARCHESCHI. The original number of requirements on the old IFB, according to our records, was 106.

Mr. MANESS. Did you sell any of the trailer 4100 to the Air Force at any time?

Mr. MARCHESCHI. Yes sir, we sold—and I am speaking from memory—a total of somewhere in the vicinity of 200 trailers prior to the time of the IFB.

Mr. MANESS. That was by negotiation?

Mr. MARCHESCHI. Yes, sir.

Mr. DALMAS. If I understood your testimony Mr. Marcheschi this trailer was merely one part of the total ground support system that you designed and offered the Air Force?

Mr. MARCHESCHI. I am sorry I cannot hear you, Mr. Dalmas.

Mr. DALMAS. I understood the trailer was only one part of the total ground system which you had engineered for the Air Force and intended to offer the Air Force, is that correct?

Mr. MARCHESCHI. Yes, sir; that is correct.

Mr. DALMAS. What happened to the items that were part of that system?

Mr. MARCHESCHI. As we attempted to explain in our testimony we reluctantly agreed to release manufacturing rights on all items of the system to the Air Force, and this has been done. They are procuring the majority of these items currently to our drawings. The reason the model 4100 is especially pertinent is because during the time of transfer of manufacturing rights to the Air Force this happened to be the one item where the Government did not acquire rights to use our manufacturing drawings and it did, in turn, wind up being bought to a design specification on advertised procurement.

Mr. DALMAS. Mr. Marcheschi, can you supply the name, with the chairman's permission, documentary evidence of certain statements that you gave throughout your testimony that certain requirements were mandatory and that you have been told that you had to do this and you had to do that? Would that be agreeable, Mr. Chairman?

Mr. MULTER. I suggest that the documents be submitted to the committee and the staff summarize them for the record rather than reproducing them in full for the record.

Mr. MARCHESCHI. I would like to say, Mr. Chairman, that very sincerely and very honestly we cannot produce a letter from the Department of Defense that says we are procuring in this manner because it is mandatory to advertise procurement. I can only say that to the best of our belief, based on numerous contacts in this area and numerous discussions, we can only conclude that this is the case.

Mr. DALMAS. Mr. Marcheschi, would you be willing to supply the names to the committee of those with whom you discussed these matters?

Mr. MARCHESCHI. I would like to say that we feel that this information was received from responsible persons within the Department of Defense, Air Force, and Navy. I believe that we would be transgressing their confidence, since this was off the record, by revealing those names and I would very much like not to do so.

Mr. MULTER. I suggest Mr. Dalmas that you not press the question. The Air Force, I am sure, will give us their views on it.

Mr. MARCHESCHI. I would very much like these people to speak for themselves if they desire to do so.

Mr. DALMAS. I don't want to ask any improper question, Mr. Chairman.

Mr. MULTER. The question is proper.

Mr. DALMAS. I would like to have the question supported as much as possible, that is all.

Mr. MULTER. It may be that you picked a bad example, in my opinion, with this situation, but what will we do with a situation—assuming, having in mind that the Department of Defense in 1958 spent over $4 billion and in 1959 over $5 billion in research and development contracts, for research outside the Government, and side by side, of course, each of these services were carrying on their own research

and development at Government expense, what happens if side by side with them, you and the Government have developed a trailer that is going to do the job?

Mr. MARCHESCHI. Mr. Chairman, you are referring to a Government-funded development?

Mr. MULTER. Yes, either that the Government has developed on its own or through one of the research and development contracts that have been let and awarded to somebody else that may have been going on 1,000, 2,000, or 3,000 miles from you and quite independently one of the other? What happens?

Mr. MARCHESCHI. We certainly can see no objection to that. The only objection that we can possibly raise is that if our company has any merit whatsoever it would have made the Government aware of our development in this area as was in fact accomplished. If the Government in turn is taking research and development money to develop something that is available off-the-shelf and is a service-proven article, then I can only conclude that this research and development is, or at the very most, questionable as to its fruitfulness and not in the best public interest.

Mr. MULTER. How is anybody in charge of research and development—when they let the contract on this trailer did they know that you were developing a particular trailer?

Mr. MARCHESCHI. The article was already developed and they were fully aware of it. Let me state that on the IFB it was not distinguished as requiring development as such. Here is a specification. What will it cost to produce this? There is no question, of course, that development was required but it was not a research and development contract. It was a supply contract.

To get back to my point, there was no question but that everybody was fully aware that this article not only existed but it existed for the past 3 years and they had approximately 200 or so in the inventory.

Mr. LENT. Mr. Chairman, may I add something to that?

Mr. MULTER. Yes.

Mr. LENT. No reputable small business concern is going to complain about other people developing a product similar to theirs; however, we prefer that they do it and not just assume that they can. I think there is another important thing for you to realize, that in the procurement of a product like this on a specification it may not, in any sense of the word, even look like the original. It may be totally different. It may be able to functionally perform the same task but the whole objective of standardization is eliminated by the fact that you do not have interchangeability between the trailer in the field and so you introduce a lot of other products which are not compatible to your weapons system. You must remember that this was procured on the basis of a design that Air Logistics had submitted to the Air Force. They never requested this IFB until they had tested this particular product and had bought some products.

Mr. MULTER. What would be the difference between this and buying a concrete mixer or a special kind of dump truck?

Mr. MARCHESCHI. Because the concrete mixers have been with us for quite a long time.

Mr. MULTER. And the trailers have too.

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Mr. MARCHESCHI. I am sure trailers have, but not this particular functional model where it is interchangeable with different weapons systems.

Mr. MULTER. Is it not possible that when the Air Force or the Department of Defense says we want a trailer that will do certain things that almost any engineer who knows this kind of work couldn't develop that kind of a trailer which would perform the function required so that it would perform on all types of engines and be able to be raised to almost any height and take any width and size and be mobile and at the same time while it is mobile it can be moved and when it is stationary you have got equipment attached to it so that it will be stationary and it won't move despite the fact that it had wheels?

Mr. LENT. Yes, but I would question whether any engineer can do it.

Mr. MULTER. Let us say any competent engineer familiar with this kind of work.

Mr. LENT. I would say a creative engineer could, but I would like to remind you that we have a lot of trailer manufacturers in the country who did not do it.

Mr. MULTER. They did not do it because they probably could not see a market for it.

Mr. LENT. I think this is relatively important that you have the creativeness, the imagination, and the resourcefulness to intercept a military requirement that is 5 or 6 years in the future and be able to research and develop that military requirement. Don't oversimplify the complexity of a piece of equipment like this.

Mr. MULTER. I could not begin to.

Mr. LENT. It is not a simple trailer by any stretch of the imagination.

Mr. MULTER. I could not begin to service an automobile despite the fact that I have been driving one for so many years. The thought going through my mind is what would have happened in the automobile industry if every man who developed a new gadget on an automobile or a new device on it, nobody else could come along and make any changes? We would still be running the Model T's, or Model A's.

Mr. MARCHESCHI. Your statement is perhaps again a critical point to be recognized. In order to sell this improved product in the case of the automobile the man who developed it had to spend his own money and expend his own efforts to create this product of a better quality or of a lower cost before he was afforded his opportunity to be compensated for it. This is risk and incentive, the foundation I think of the free enterprise system that was responsible for going from the Model T Ford to the Cadillac today.

But this is not what we are experiencing in military procurement. Perhaps it is not possible to use the same type of rules but at the very least, we say do not take our drawings, our ideas, our products and copy them either by taking our drawings or by writing detailed design specifications around them and turn them over to other manufacturers who have incurred no risk whatsoever.

An interesting aside; when the specifications were written around our product, and I do not believe there is any doubt whatsoever that they were directly written around our product, utilizing our drawings

which had been provided only for maintenance, supply, and evaluation, WADC forwarded a copy of them to our company and asked whether we thought that the specification was adequate. Now I cannot believe that if the man who wrote this letter was fully appreciative of our feeling at that moment he would have sent it.

Mr. MULTER. What was your answer?

Mr. MARCHESCHI. I don't recall what our answer was. I did not answer the letter personally.

Mr. MULTER. I think we would be interested in seeing both the letter of inquiry and your answer and you can submit it for the record.

Mr. MARCHESCHI. I will not preclude the possibility, Mr. Chairman, that we were so infuriated at this point that I think possibly our anger overrode our good judgment and the letter was not answered, but if there was an answer I will provide both it and the inquiry to the committee.

(Letter and answer referred to above not received at time of printing.)

Mr. MULTER. Is there anything else either of you gentlemen wish to add? If not, thank you very much.

Mr. MARCHESCHI. If I may, Mr. Chairman, I would like to add another point. At the time that the Air Force requested manufacturing drawings from us, we in writing to the Air Force, did make a firm proposal to license other competent manufacturers to produce this equipment on any form of procurement that the Government would have desired to use. The ASPR as presently written suggests licensing as a means of solving this problem. We did not receive a favorable response to our proposal.

Mr. DALMAS. Mr. Chairman, may I ask a question?

Mr. MULTER. Yes, certainly.

Mr. DALMAS. Did you have to ask the Air Force for permission to license somebody? Couldn't you have gone out and licensed them on your own?

Mr. MARCHESCHI. I don't know whether we had to or not. As I remember the letter, we proposed to do it either alone or with the joint participation of the Government.

Mr. DALMAS. I think it is very similar to a case such as that where you are putting the responsibility on the Government to approve somebody whom you would want to license. Do you think that would be a proper responsibility of the Government to assume?

Mr. MARCHESCHI. I do not believe that our proposal to the Air Force was made with that intent, Mr. Dalmas. We certainly wanted to use the approach where the Government would feel that everything was being done in accordance with its best interests, and we certainly thought we were acting in and had the best interests of the Government at heart.

Mr. DALMAS. My point is that you developed this with your own money.

Mr. MARCHESCHI. Yes, sir.

Mr. DALMAS. You have since developed a commercial use for it and then you would be free at the moment if you so desired to lease this trailer or whatever other part that was necessary for this ground

control to anybody you wanted to or who wanted it, is that not right?

Mr. MARCHESCHI. I can only assume that is right, sir.

Mr. DALMAS. So the responsibility of licensing in that particular case would be yours?

Mr. MARCHESCHI. Yes, sir.

Mr. LENT. I think, Mr. Dalmas, that it is fair to say that in all probability it was a technique of negotiation. So rather than run the risk of having your proprietary product handed to some other manufacturer for quantity procurement you offer to license a company to produce the product.

Mr. DALMAS. Couldn't you have done that in any event?

Mr. LENT. Yes, sir, the company could have done that.

Mr. MULTER. In other words, you needed no permission from anybody?

Mr. MARCHESCHI. I believe that at the time in question the detailed design specifications had already been written around all our products or were about to be written. Therefore we came back to the Air Force with a bona fide offer which we believed would not only satisfy the purposes of the second source from a readiness and production standpoint but also from a competitive standpoint. But as I say the specification route which is really only a means of circumventing the proprietary rights problems on drawings—manufacturing drawings—was in the process of occurring or had already occurred.

(Air Force comments on Mr. Marcheschi's testimony appear in app. No. 6, enclosure C, on p. 190.)

Mr. MULTER. Thank you very much. You may stand aside. Do you want to try to start with our next witness, Mr. Lent?

Mr. LENT. I would like to ask permission to have Mr. Elmer Ward to testify next.

Mr. MULTER. Mr. Ward, will you come forward please? Will you identify yourself please, with your full name and address.

## TESTIMONY OF ELMER F. WARD, PRESIDENT, TASK CORP., ANAHEIM, CALIF.

Mr. WARD. I am Elmer F. Ward. My home address is 465 North Main Street, Orange, Calif. I am president of Task Corp. of Anaheim, Calif. Task Corp. is an independent company incorporated under the laws of the State of California. The products of our company embrace the two fields of research equipment, and production components and systems, for the aircraft and associated industries. In each of these endeavors, the company enjoys a group of proprietary products representing highly advanced technology, achieved as a result of expenditure of its own funds.

The company employs approximately 100 persons and has been actively soliciting business since November of 1953. Incorporation occurred on April 20, 1954.

Because of the relatively capricious nature of Government procurement, Task has always most actively sought business having strong commercial background. Such an attitude has, however, been taken with great reluctance. Task, we feel, is uniquely qualified in several areas of endeavor essential to our defense requirements but we are forced by purely survival considerations to direct our major effort

away from Government procurement. This does not mean that we have avoided it altogether.

In the testimony following I will present to you, in chronological order, the actual details of two cases wherein the proprietary rights of the company were either abridged or placed in jeopardy. One case has been selected representing each of the two fields; that is, research equipment and production components and systems. It is disturbing to us to present this particular case. I will present three cases altogether, although there were only two originally stated. The third was brought to mind as a result of other testimony.

CASE NO. 1

In May of 1956 Task Corp. began the design and manufacture of special-duty electric motors. Through company-sponsored efforts, a highly sophisticated engineering and manufacturing approach has been originated resulting in a more complete integration of the electrical, mechanical, and thermodynamic criteria of electric-motor design.

The end product of this development is the lowest weight and smallest package size yet attained in an electric motor. The criteria are applicable to both a.c. and d.c. motors, and examples have been produced from very small fractions of a horsepower to several hundreds of horsepower.

It is important to note here that the criteria, the method, the approach, or whatever you want to call it, are not patentable or otherwise protectable. The completed article contains no special materials that cannot be determined by simple inspection. Any agency skilled in the art can easily reproduce the end articles, using conventional machine tools and techniques. In other words, it is in the origination and application of concepts that our proprietary investment resides, and for which there is presently no equal available from any other source. I think it should also be pointed out that we do not produce off-the-shelf items. We produce to a requirement, whether we are producing commercially or for the military, but we are producing to a requirement, and what we are using is the knowledge that we had previously gained to provide us with a competitive advantage.

On May 14, 1959, Task Corp. was contacted by Vickers, Inc., of Detroit, Mich., to determine availability of a d.c. motor to be used to drive a Vickers pump on the Polaris missile. The Polaris missile is a U.S. Navy-sponsored vehicle, having Lockheed Aircraft Corp. as prime contractor.

The requirement was extremely urgent, and, fortunately, Task had used a motor of the approximate power and speed of the Polaris requirement for its internally sponsored investigations. We were, therefore, in a favorable position to produce and promptly quoted. A subcontract was subsequently let to Task June 18, 1959, by Vickers for the production of 46 motors. Deliveries and specifications have been met and the motors, when compared on the basis of output power demand, are the lightest, smallest, and most efficient of the three subcontractors currently supplying similar equipment on the Polaris program.

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Neither the original copy of Lockheed Aircraft Corp. specification 1917776, received June 22, 1959, or Vickers specification 0119–159–1, received on the same date, and included as part of the contract, made any reference at all to proprietary rights.

There were subsequent revisions to these specifications included on proprietary notice, as follows:

Lockheed Aircraft Corp. specification 1917776, revision A, sheet 1 of 17:

> The right to manufacture, in whole or part, the product defined by this specification and related drawings is not conveyed directly, or by implication, with release of detailed drawings. Manufacture, in whole or part, shall be subject to separate negotiations between the supplier and the procuring activity. These detailed drawings and related specifications are being furnished to facilitate quality assurance, reliability, and engineering evaluation. Since information contained therein reflects properietary date of the supplier, these drawings and related specifications shall be controlled to prevent disclosure of their contents to persons not having "need to know."

Vickers, Inc. specification 0119–159–1–F, paragraph 7.3.3:

> Where the article is considered vendor-proprietary (item not developed on Navy funds), the right to manufacture that item, in whole or in part, is not conveyed directly, or by implication, with release or detailed drawings, manufacture of proprietary item, in whole or part, shall be subject to separate activity. These detailed drawings and related specifications shall be furnished to facilitate quality assurance, reliability, and engineering evaluation. No change to these drawings, process, or specifications can be made without prior, written approval of the procuring activity.

Followon orders for slightly revised equipment contained essentially the same proprietary notices as given above.

During October of 1959, it became apparent that the existing motor-pump configuration would not be satisfactory for all versions of the Polaris missile and that a new, smaller design of both motor and pump would be needed. Vickers had, for the previous 4 months, approximately, been working on a new pump design which appeared reasonable for the new requirement. Task, during October, began the development of a motor to suit this new pump. Calculated performance and a preliminary drawing were forwarded to Vickers October 31, 1959, referring to the motor identified as Task part No. 004542–1. Work on the new motor progressed to the point that by mid-November tooling had been ordered and long leadtime items were under procurement.

On November 11, 1959, a subtier meeting was held at Lockheed in Sunnyvale, Calif., to discuss the new Polaris requirement. Tentative specifications were made available to all attendees. The purpose of the meeting was to correlate the various approaches to the problem afforded by each vendor, to arrive at a configuration which was acceptable to the majority of possible vendors and to acquaint Lockheed with equipment limitations known only to the specific manufacturers. A review of the specification was conducted and comments invited. A tentative schedule was established for submission of data and proposed contractual commitment dates.

Lockheed Aircraft specification 1931314 presented at this time contained a proprietary notice identical to that given in other Lockheed Aircraft specifications previously cited. There was no indication that the situation with respect to proprietary rights had, or would, change.

By early December 1959, preliminary motor tests had been conducted and design had progressed to the point where complete integration of the motor-pump package could be accomplished. A contract was, therefore, entered into with Vickers on January 18, 1960, to supply two test units at a nominal cost for the purpose of determining compatibility of the motor with the operational requirements of the pump. These units have been delivered and we are doing some additional testing in our own plant at the present time.

Three motors, having slightly different characteristic performances, were then produced and finally two additional units embodying the most favorable characteristic were constructed. Two of the three similar units are supplied to Vickers and one retained at Task for further qualification testing.

As a result of these efforts, all of which had been the result of private venture, Vickers, Inc., in conjunction with Task Corp., submitted a proposal for the new Polaris requirement which was superior to that of any other solicited vendor. In addition, because much of the work being performed by Vickers and Task was carefully monitored by Lockheed, the new Polaris integrated power package incorporates many of the suggestions offered and is smaller, lighter, simpler, more efficient, and less expensive than had originally been anticipated.

Late in January 1960, Vickers, Inc., received in Detroit a proposed form of contract for additional motor-pumps. Included was a new proprietary notice incorporating the unlimited rights in data requirement of ASPR 9–203.1.

This was the first indication that the vendors' rights on the new procurement were to be abridged.

At first, it was assumed that some mistake had been made and the wrong clause entered, but subsequent investigation revealed that the new position would be firm. Further, there was no realistic possibility that the Government would be willing to pay for the prior development. Having definitely established the feasibility of the design, other sources would now, with confidence, proceed with far less investigatory cost, thereby putting themselves in a better competitive condition.

On January 21 and 22, 1960, a meeting was held at Vickers in Detroit, between representatives of Task and Vickers. The whole problem of proprietary rights and the Polaris program was discussed. It was decided that this proposed invasion of rights should be contested and that Vickers, being the only member having direct contact with Lockheed (Task as a sub-subcontractor cannot engage directly) would conduct the negotiations. Task Corp. did not at this time, nor at any subsequent time, offer to relax its position with regard to the terms of this procurement. That is, we refused the data at any time.

The approach taken by Vickers in contesting the new proprietary clause is embodied in the copies of the attached two letters written by W. V. Scholz, district representative of Vickers, Inc., to Mr. Lyle Gransee, senior buyer of Lockheed Aircraft Corp. There being no defense against the Lockheed document per se, our only course was to indicate interpretation of similar documentation previously found to be acceptable to the Government and which was at the same time acceptable to ourselves. Now we are not aware of the nature of the negotiations.

As a result of the negotiations with Lockheed (the foregoing represents only a small portion of the total effort) and Lockheed's negotiations with the Bureau of Ordnance, the following clause was admitted to the contract:

The provisions of the data clause apppearing in Section 9–203.1 of the Armed Services Procurement Regulations are incorporated herein by reference. In addition thereto the following provisions shall apply; but only with respect to detailed drawings relating to—

(1) All parts of the pump rotating group sub-assembly.
(2) All parts of the pump compensator control sub-assembly.
(3) All of the electric motor, armature, and field component drawings.

Detailed design drawings delivered by Seller under this order shall not be released outside Lockheed or the Government, nor be duplicated, used, or disclosed in whole or in part for procurement or manufacturing purposes (other than for manufacture required in connection with repair or overhaul where an item is not procurable commercially so as to enable the timely performance of the overhaul or repair work: *Provided*, When any such drawings are released by Lockheed or the Government to a Contractor or a Subcontractor for such purposes, the release shall be made subject to the limitation of this clause: *Provided further*, such drawings shall not be used for manufacture or procurement of spare parts for stocks), without permission of Seller, if the following legend is marked on each such drawing so limited either in its entirety or only partially as to its content:

"Furnished under Lockheed Purchase Order Number ——— under United States Government Contract Number ——— and only those portions hereof which are marked (for example, by circling, underscoring, or otherwise) and indicated as being subject to this legend shall not be released outside Lockheed or the Government (except to foreign governments, subject to these same limitations), nor be disclosed, used, or duplicated for procurement or manufacturing purposes, except as otherwise authorized by contract, without the permission of Vickers, Incorporated. This legend shall be marked on any reproduction hereof in whole or in part."

*Provided*, That such drawings may be delivered to foreign governments as the national interest of the United States may require, subject to the limitations specified in this paragraph. Seller shall not impose limitations on the use of any drawing or any portion thereof, which seller has previously delivered to Lockheed or the Government without limitation.

You may wonder why a case wherein our rights were not violated should be presented as testimony. In this particular situation, we were very fortunate to be allied with a considerably larger company of unquestioned veracity which produces an admittedly superior product. Consider, however, the chances of Task, a very small company, negotiating as a sub-subcontractor through an indifferent subcontractor. It is obvious that our efforts would be fruitless.

Consider also the cost that these negotiations incurred over a period of approximately 30 days. It is apparent that a clarification in this area would be welcomed by all concerned. In other words, there never should have been the necessity for the negotiations regardless of their final outcome.

CASE NO. 2

One of the first items of research equipment produced by Task following its inception was a device generally referred to as an internal balance for wind tunnel models. Because a balance is a rather uncommon piece of equipment, a short description is in order.

An internal balance is a force and moment (twisting or torqueing effort), measuring device mounted inside a wind tunnel model of an aerodynamic vehicle. Because of its small size and lack of complex support mechanism, it is an ideal instrument for aerodynamic testing.

The balance may be thought of as a transducer capable of six simultaneous measurements. To appreciate the degree of complexity involved, it must be recalled that the usual transducer is a single function device, that is, it measures a single force, acceleration, pressure, et cetera. This single function is, therefore, given precedence over all other extraneous influences which may be present. For example, a pressure transducer is required to continue to function accurately during severe vibration when large unwanted forces are present.

An internal balance, on the other hand, is required to respond accurately to three forces and three torques simultaneously; to measure each of these components, and to isolate the effect of each force or torque from the other forces and torques. In short, the internal balance represents a degree of design sophistication not to be found in any other transducer.

For about 10 years prior to the entrance of Task into this field, a steady effort had been made by various wind tunnel research agencies around the world to find solutions to the complex design problems of the internal balance. Many talented researchers had contributed to this work and a fairly substantial body of information regarding various techniques and configurations was available. Much work was needed to correlate this information and to resolve the pressing problems still present in each design approach.

Task undertook this effort and through a combined analytical and experimental program, was able to devise solutions resulting in an instrument of unquestioned superiority. To attest to this statement, Task balances are used throughout the free world. Many American and European wind tunnel facilities make use of Task balances exclusively. In fact, Task is the only consistent producer of internal balances of which we are aware. I say consistent because over the past 5 years there have been two or three individual attempts to produce balances privately. To the best of our knowledge, these attempts have been largely futile.

Our primary competitor for this product is the Government facility, which in one instance, NASA at Langley Field, Va., maintains a design, manufacture, and instrumentation group for the production of balances, which is equal to, or greater than, the one at Task. Several other similar groups are currently being expanded so that they can bring all this work "inside" where it "belongs."

One of the products of our balance research venture was a series of applicable patents as follows:

Eccentric Load Compensating Strain Gage Mount 2,796,503; Temperature Compensated Force Balance, 2,844,027. All of these patents are presently valid and are incorporated in current production.

On September 28, 1957, a letter from J. H. Carrington, chief engineer, University of Southern California Engineering Center, Aeronautic Laboratories Department, was received. The letter is typical of inquiries for this equipment and reply was made in Task letter 1576 (417). By way of explanation, the USCE–ALD is a university-operated facility at Oxnard, Calif., owned by the U.S. Navy.

Four months later, on January 31, 1958, Task received a request for quotation (not numbered) from the engineering center (see p. 91). To our surprise, the accompanying drawings (not available because

they were returned per instructions) and instructions depicted designs produced by the engineering center, to the same requirements as the previous correspondence, and incorporating patentable features of the Task designs.

The engineering center was advised of the possible infringement at a meeting with Lee M. Springer of the center on February 11, 1958. It was pointed out that the designs were obviously based on information previously supplied to the engineering center and that Patents 2,796,503 and 2,844,027 were involved. It was pointed out that Task had no intention of preventing the manufacture and use of the engineering center-designed instruments but that reasonable compensation should be made.

Task prepared a quotation for the subject equipment and submitted in accordance with the request. We were not the successful bidder and can only assume that the articles were produced by another manufacturer. In any case, we were simply ignored with respect to our patent position.

Several similar instances have occurred involving procurement at Wright Air Development Division in Dayton, Ohio. In one case, the Government encouraged another manufacturer to violate our patents by removing the usual contractual clause wherein the producer saves the Government harmless (USAF contract AF–33(600)–3434, West Coast Research Corp. Suit was instituted against WCRC but was blocked by title 28, United States Code, section 1498, which requires that all such suits must be conducted with the United States as defendant in the U.S. Court of Claims. The contractor admitted infringement but was not required to hold the Government harmless (a most unusual situation), and, therefore, was unconcerned.

The cases presented represent only a few of the typical situations which confront the manufacturer daily. Many are avoided by simply passing over the Government procurement. At times, this can be a very trying decision to make. Not only do you appear foolish to your ownership in turning down an apparently valid contractual requirement, but you are forced to live with the larger consideration that the practicalities of business survival limit your contribution in the national defense effort which may, in the end, determine your ultimate survival.

My real point here is that there never should have been a necessity for the discussions, regardless of their final outcome. With a clarification negotiations would be resolved either one way or the other. Either we have rights or we do not have rights.

Mr. MULTER. What kind of clarification order should there be in this respect? There was negotiation and apparently there was a satisfactory result. What should have been done here that was not done or what should we do in the future? What should the services do in the future so as not to have this kind of a situation?

Mr. WARD. I believe that they should observe the same requirements as are observed in industry with regard to proprietary rights. I believe that there is enough background in the law to indicate what these are and what they are not.

Mr. MULTER. Suppose the Government were not involved here and it was you and Vickers and Lockheed and a fourth company, what would they do in industry that is not done here?

Mr. WARD. They would ask for a specification control drawing so that they could determine the needs or they may even ask for drawings to be used for purposes other than procurement, with the stipulation that they were to be used for the purposes. They would offer it. This way we have to fight for it each time.

Mr. LENT. May I interject something, Mr. Chairman?

Mr. MULTER. Please do.

Mr. LENT. The real problem is that perhaps 80 percent of the contracts let with large prime weapons contractors are research and development types. It is reasonable to assume that the majority of them have unlimited rights clauses in them.

Working as a subcontractor to a prime contractor or a sub-subcontractor or a sub-sub-subcontractor you, by taking a contract with that prime contractor, have a mandatory requirement to accept the same conditions of the contract that he accepted from the Government. It could very well be that if Mr. Ward as Task Corp. had negotiated directly with the Government and the Government had purchased the product, then they in all probability would not have required proprietary data because in the ASPR they are told not to request it, and he would have an opportunity to appeal the decision if they had decided to. But working as a subcontractor for another subcontractor, he must accept the conditions of the contract that the subcontractor accepted.

Mr. MULTER. If he wants to do the business.

Mr. LENT. If he wants to do the business, and in many instances there is no logical reason for the request for proprietary data other than the unlimited clause is in the prime contract.

Mr. MULTER. What is the solution you suggest; that the sub, this sub-subcontractor go directly to the Government?

Mr. LENT. No. The solution is to not make it mandatory that the conditions of the prime contract be applied to everyone down the tier. Each contract should be negotiated on the basis of need for the data. In other words, why apply the rights unlimited clause where no requirement for such action exists?

Mr. MULTER. Isn't that in the subcontract? The subcontractor makes the contract subject to the prime contract and the contractor is in control of the situation so that he can modify or can reduce or can make other proposals which the Government or whoever they are dealing with and the subcontractor by the very nature of the subcontract is going to be in trouble all the time.

Mr. LENT. But I submit that the prime contractor, under the terms of his prime contract, is not in a position to negotiate this. You will hear testimony later on in which this very situation existed; a subcontractor of a prime contractor was held in default because he did not demand prints and drawings of the components that were bought under his contract.

Mr. MULTER. Whose fault was that?

Mr. LENT. Whose fault was it?

Mr. MULTER. You said he was held in default and that was the subcontractor's fault in not getting those drawings.

Mr. LENT. The subcontractor was under the impression that the proprietary rights were owned by that organization and that he had

no right to the proprietary data on a product that had been developed by his subcontractor.

Mr. MULTER. How can you prevent a recurrence of that situation?

Mr. LENT. Again it is administration. This points up the fallaciousness of this whole problem where some representatives in the Government believe that the Government is entitled to everything when they pay for a product whether it was developed on Government money or not. When the Government lets a research and development contract for a weapons system of the B–52 variety it is true that they should be entitled to all the reproduction rights and all the data that goes into the building of that B–52, but it does not follow that they have the right to proprietary data and the patent protection of a valve that has been in existence for some time and that was bought and used on the B–52 bomber, but you see they are applying this thing right down the line to where the small businessman without any negotiating ability is forced to give up his data to make a sale. It would be beyond the realm of imagination that you as a private individual would go in and buy a bottle of Mennen's Skin Bracer and then demand the formula of its manufacturer; and so I point out to you, Mr. Chairman, that there are many component items in these weapons systems that the Government has not spent a dime on and they have absolutely no right to proprietary data that is associated with these components, but with this administration of the unlimited rights clause in the prime contract the Task Corporations of the United States are forced to give their property away.

Mr. ROBISON. As a result of this situation have some subcontractors reluctantly gone to the device of submitting two sets of drawings, one to comply with the governmental requirement and one which they keep for their own purposes?

Mr. LENT. Yes, sir; they do. It is incomprehensible to me, but the Assistant Secretary of Defense for Supply and Logistics wrote a letter in which he suggested that the contractors should submit the second set of drawings. In other words, eliminate from the drawings all that which you consider as proprietary and submit an emasculated set of drawings. What is the good of submitting a set of drawings which are meaningless? They are meaningless, and dreadfully expensive and I can see no possible purpose that they serve.

Mr. WARD. I would like to point out that an emasculated set of drawings was requested in this case because the drawings were eventually to be produced on BuOrd format and the drawings that were used to produce the articles had to be the drawings which were on the BuOrd format. In other words, the producer was to lose control of his drawings. So an emasculated set of drawings was not only unreasonable because in itself what good is a set of emasculated drawings, but it was precluded by the fact that you had to produce the articles from these drawings which were produced under the BuOrd format and there was a Navy inspector to see that you did exactly that.

Mr. MULTER. Was this first case connected with the research and development contract that the Lockheed Co. had with the Government?

Mr. WARD. I am sure it is. I have no direct knowledge of the Lockheed contract, of course, but this is on the Polaris contract.

Mr. MULTER. That is what prompts the question. It is a research and development contract between Lockheed and the Government.

Whatever Lockheed develops under that contract was paid for by the Government. How can they protect the subcontractor whose contract is subject to all the provisions of the Lockheed contract?

Mr. LENT. Do you consider that this is development?

Mr. MULTER. If it is not tell me it isn't, but I assume that it is a research and development contract.

Mr. WARD. It is a research and development contract but a research and development contract does not necessarily buy only research and development articles.

Mr. MULTER. Doesn't the overall research and development contract always provide that everything that is developed under that contract by reason of research and development belongs to the U.S. Government? Isn't that one of the important provisions of the contract?

Mr. WARD. You are right. Everything that is developed belongs to the Government, but that which was not developed under that contract should not belong to it.

Mr. MULTER. What should we do to protect the subcontractor?

Mr. LENT. If the requirement that the prime contractor contract with the subcontractor on a research and development basis then the same rules that apply to the subcontractor apply to the prime contractor, but when a contractor goes out and buys a product which is already developed and only is modified for the use in this particular weapons system you have not paid for the development of that product, Mr. Chairman. And you have no right to the proprietary data associated with it. You asked how to do it. Now a lot of people believe in the statistics which state that the Government says we spend $8 billion for research and development and that this means that every dollar was spent in the development of new products, and I say categorically that such belief is without foundation.

Mr. MULTER. I think we will take a recess at this time until 2 o'clock. We will meet at 2 o'clock in this room, and tomorrow we will meet in this room at 10 o'clock in the morning.

(Thereupon, at 12:15 p.m., the subcommittee recessed, to reconvene at 2 p.m., of the same day.)

AFTERNOON SESSION

Mr. MULTER (presiding). The committee will please be in order.

We will resume where we left off at the recess. Mr. Ward, you may continue.

## TESTIMONY OF ELMER F. WARD; ACCOMPANIED BY ROBERT R. LENT—Resumed

Mr. WARD. Thank you.

The second case is related to research equipment produced by Task.

One of the first items of research equipment produced by Task following its inception was a device generally referred to as an internal balance for wind tunnel models. Because a balance is a rather uncommon piece of equipment, a short description is in order.

An internal balance is a force and moment (twisting or torqueing effort), measuring device mounted inside a wind tunnel model of an

aerodynamic vehicle. Because of its small size and lack of complex support mechanism, it is an ideal instrument for aerodynamic testing.

The balance may be thought of as a transducer capable of six simultaneous measurements. To appreciate the degree of complexity involved, it must be recalled that the usual transducer is a single function device, i.e., it measures a single force, acceleration, pressure, and so forth.

This single function is, therefore, given precedence over all other extraneous influences which may be present. For example, a pressure transducer is required to continue to function accurately during severe vibration when large unwanted forces are present, but the important function that it must measure is still only pressure.

An internal balance, on the other hand, is required to respond accurately to three forces and three torques simultaneously; to measure each of these components, and to isolate the effect of each force or torque from the other forces and torques. In short, the internal balance represents a degree of design sophistication not to be found in any other transducer.

For about 10 years prior to the entrance of Task into this field, a steady effort had been made by various wind tunnel research agencies around the world to find solutions to the complex design problems of the internal balance. Many talented researchers had contributed to this work and a fairly substantial body of information regarding various techniques and configurations was available. Much work was needed to correlate this information and to resolve the pressing problems still present in each design approach.

Task undertook this effort and through a combined analytical and experimental program, was able to devise solutions resulting in an instrument of unquestioned superiority. To attest to this statement, Task balances are used throughout the free world. Many American and European wind tunnel facilities make use of Task balances exclusively.

In fact, Task is the only consistent producer of internal balances of which we are aware. I say consistent because over the past 5 years there have been two or three individual attempts to produce balances privately. To the best of our knowledge, these attempts have been largely futile.

Our primary competitor for this product is the Government facility, which in one instance, NASA at Langley Field, Va., maintains a design, manufacture, and instrumentation group for the production of balances, which is equal to, or greater than, the one at Task. Several other similar groups are currently being expanded so that they can bring all this work, required for these balances, "inside" where it "belongs."

One of the products of our balance research venture was a series of applicable patents as follows:

Eccentric Load Compensating Strain Gauge Mount, Patent No. 2,796,503; and Temperature Compensated Force Balance, No. 2,844,027.

All of these patents are presently valid and are incorporated in current production.

On September 28, 1957, a letter from J. H. Carrington, chief engineer, University of Southern California, Engineering Center—Aero-

nautic Laboratories Department, was received. The letter is typical of inquiries for this equipment and reply was made in Task letter 1576(417).

By way of explanation, the USCEC–ALD is a university-operated facility in Oxnard, Calif., owned by the U.S. Navy.

Four months later, on January 31, 1958, Task received a request for quotation (not numbered, but given in the enclosure) from the Engineering Center (see p. 91). To our surprise, the accompanying drawings (not available because they were returned per instructions) and instruction depicted designs produced by the engineering center, to the same requirements as the previous correspondence, and incorporating patentable features of the Task designs.

It should be stated here that in our reply we sent literature which described our designs in some detail. This is necessary in order to evaluate this particular type of equipment in order to determine whether it is satisfactory for your particular application.

The engineering center was advised of the possible infringement at a meeting with Lee M. Springer of the center on February 11, 1958. It was pointed out that the designs were obviously based on information previously supplied to the engineering center and that Patents 2,796,503 and 2,844,027 were involved. It was pointed out that Task had no intention of preventing the manufacture and use of the engineering center-designed instruments but that reasonable compensation should be made.

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Suit was instituted against WCRC but was blocked by title 28, United States Code, section 1498 which requires that all such suits must be conducted with the United States as defendant in the U.S. Court of Claims. The contractor admitted infringement but was not required to hold the Government harmless (a most unusual situation) and, therefore, was unconcerned with the action.

The cases presented represent only a few of the typical situations which confront the manufacturer daily. Many are avoided by simply passing over the Government procurement. At times, this can be a very trying decision to make.

Not only do you appear foolish to your ownership in turning down an apparently valid contractual requirement, but you are forced to live with the larger consideration that the practicalities of business survival limit your contribution in the national defense effort which may, in the end, determine your ultimate survival.

I have added to my testimony a third case, which was similar to a case brought out by Mr. Hahn, only it is in a different status. In Mr. Hahn's testimony he had a development item, and submitted it to

the Government, and the Government subsequently went out on bid to have that item developed all over again.

In this case, we are right at that point.

A more recent product development at Task has been lightweight refrigeration equipment for aircraft and in transportable applications. In the 2 years that we have been active in this field, we have become virtually the exclusive supplier of galley refrigeration condensing units for the world's airlines. In the past year we have sold units for installation by 18 foreign and domestic airlines. The reasons for our sudden emergence in this field is a superior product and a reasonable price.

Following our airline success we undertoook the development of larger units applicable to air conditioning requirements for air transportable huts and trailers used by the military. This development work was under the direction of our engineer Richard N. Rigney who subsequently visited several Government agencies regarding their requirements for this kind of equipment.

The following is a telegraphic report of discussions attended by Mr. Rigney. This was just in the nature of a report to me.

A copy of the telegram is as follows:

Arrived at Engineer Research and Development Laboratories (ERDL), Fort Belvoir, Va., February 16, 1960, to inquire into the future needs of the Army for lightweight air-conditioning equipment and to see where our line of air-conditioning equipment might best fit into their programs. Met Mr. Lisch, section chief, Air Conditioning Group, who was very interested in our equipment.

He informed me that they were starting a miniaturization program and that our equipment was probably in the right size, weight, and price range for the job on hand. He introduced me to Mr. Mahalick, senior project engineer on light weight systems, and then left.

Mr. Mehalick and I discussed refrigeration problems in general and the specific problems associated with light weight systems, ERDL requirements, standardized air-conditioning units and components, and the possible use of Task equipment in their new program.

In the course of our discussion we brought up the purchasing policies of ERDL and their specific application to the product we manufacture. He said that ERDL would probably let a contract for the design, fabrication, and test of one or two units for both the complete air-conditioning unit and the compressor only—a compressor is the major component of an air-conditioning system.

They would require the contractor to furnish all drawings, data, and processing information necessary to manufacture the unit and to surrender proprietary rights. On completion of the development contract they would obtain quotations for the manufacture only of the above items. ERDL would then purchase the compressor directly from a manufacturing concern, and supply it as Government furnished equipment to some other source who would be fabricating the air-conditioning unit.

I could not find the specific individual who had instigated this policy. When I questioned Mehalick about this, he said he did not know, that it was a general policy of ERDL not to be tied to a single source supplier with a proprietary product, and that they prevented this by issuing a development contract with full rights to the Government.

On February 18, 1960, I returned to show the air-conditioning group our one-fourth horsepower condensing unit as an example of our work. This was viewed by Mr. Lisch, Mr. Mehalick, Mr. Little (a project engineer I had met earlier at Ellis & Watts) and another project engineer whose name I don't remember. We discussed the whole procuring matter again (Lisch had left) but did not come up with anything new. Little and the other man were well acquainted with our problems in surrendering proprietary rights but felt there was not anything they could do.

The ERDL objections in dealing with concerns with proprietary products seem to be as follows (related to me during conversation at ERDL):

1. Price too high for lack of competition.
2. Supplier may not remain in business.
3. Supplier may have quality problems.
4. Supplier may not be able to meet production requirements.
5. Even if there is another competitive unit on the market, it will not be directly interchangeable, hence a logistics problem.

RICHARD N. RIGNEY, *Task Corp.*

I can only assume the Government is telling us as follows:

"Basically it is the intention of the Government to obtain air conditioning compressors and complete air conditioning systems without the necessity for having to recognize proprietary rights. It is the opinion of the Government that the logistics problem demands a single design whereas the realities of procurement demand multiple sources. These conflicting requirements can *only* be met through the use of Government-owned designs, specifications and drawings. "Therefore, even though you have already developed a unit which will satisfy our requirements, we cannot, *unless you are willing to relinquish all proprietary rights*, do business with you."

Frankly, we disagree with the premise that the Government interests are best served with a single design approach to this procurement. Historically, such an attitude has always stifled development of improved products designed to the same requirements. We feel that a basic performance specification should be prepared providing complete interchangeability of the package. Then it is up to the individual supplier to satisfy the requirement in his own way leaving the Government free to select that design, or designs, which are found to be the most satisfactory in the field.

Here again if only one design is found to really meet the requirements—a highly unlikely situation itself—alternate sources could always be developed under a licensing agreement which can be negotiated to the satisfaction of the Government and the supplier.

I am sure that you will find all members of our organization quite willing to work on such a basis.

Mr. Chairman, that concludes my testimony.

(The letter dated January 26, 1960, and "Request for Quotation" submitted by Task Corp. are as follows:)

JANUARY 26, 1960.

Mr. LYLE GRANSEE,
*Senior Buyer, Lockheed Aircraft Corp., Missiles and Space Division, Sunnyvale, Calif.*

DEAR MR. GRANSEE: Your PO 12–5868 contains a statement under "Basic data" to the effect that we are required to comply with the provisions of the basic data clause appearing under paragraph 9–203.1 of Armed Services Procurement Regulations. Lockheed's specification OS–9268 also references BuOrd Document OP–400 General Instructions for the Design, Manufacture, and Inspection of Naval Equipment.

We understand that by the BuOrd interpretation placed on ASPRA Regulation 9–203.1, and by the requirements of Document OP–400, Lockheed is obligated to require its vendors to supply all detailed drawings without restrictions, whenever possible to obtain the vendor's agreement.

Previous releases of Lockheed specifications for the hydraulic pump motor assembly contained paragraph 6.3 which protected the vendor's proprietary rights where the article was not developed with Navy funds and the item would therefore be considered vendor proprietary. This paragraph has now been deleted from specification OS–9268.

It is our contention that Vickers has a very definite proprietary interest in certain portions of the hydraulic pump and electric motor which we have supplied and hope to continue to supply for the Polaris. These basic parts were developed with our own funds for commercial applications and have been modified and improved for use in hundreds of thousands of units over a period of many years. We do not believe it is ethically or morally right that we be forced to give up our proprietary interests without any protection whatsoever, nor do we honestly believe it is the intention of ASPR Regulation 9–203.1 that we be required to do so.

As a possible resolution to this problem, we offer two alternatives for your consideration, as follows:

1. We will furnish all detailed drawings as requested, but those drawings indicated below will incorporate our proprietary stamp.

(*a*) All parts of the pump rotating group subassembly.

(*b*) All parts of the pump compensator control subassembly.

(*c*) All of the electric motor, armature, and field component drawings.

Our proprietary stamp would be worded similar to the following which has been accepted by BuOrd on previous contracts with Vickers, Inc., Marine & Ordnance Division:

"This drawing is furnished under PO ——— dated ——— between Vickers, Inc. and Lockheed Aircraft Corp. under the latter's U.S. Government contract No. ——— and this drawing shall not be released or disclosed except to the Government nor be released outside the Government (except for foreign governments subject to these same limitations) nor disclosed, used, or duplicated for procurement or manufacturing purposes except as otherwise authorized by said subcontractors without the permission of Vickers, Inc.

"This legend shall be marked on any reproduction hereof in whole or in part."

2. We will furnish all detail drawings except those designated under (*a*), (*b*), and (*c*) of item 1 above. There will be no restrictions whatsoever indicated on any drawings so furnished.

We sincerely hope that one of these alternatives will be acceptable to you and BuOrd representatives. We look forward to continuing what we believe has been a mutually beneficial relationship.

Sincerely yours,

VICKERS, INC.,
W. V. SCHOLZ,
*District Representative.*

UNIVERSITY OF SOUTHERN CALIFO 'A
PURCHASING DEPARTMENT
LOS ANGELES 7, CALIFORNIA

ENGINEERING CENTER

REQUEST FOR QUOTATION
(THIS IS NOT AN ORDER)

Task Corporation
1009 E. Vermont
Anaheim, California

Requisition No.

Date January 29, 1958

Please quote your lowest price for each of the following items, showing catalog reference where applicable. Indicate the time required to furnish each item. Any change in specifications must be plainly noted. The right is reserved to accept or reject quotations on each item separately or as a whole. No charges over and above the prices quoted below will be allowed.

Submit your quotation before February 17, 1958

[redacted]

| ITEM | QUANTITY | UNIT | DESCRIPTION | DELIVERY DATE | NET UNIT PRICE | TOTAL—MUST BE EXTENDED |
|---|---|---|---|---|---|---|
| | 1 | ea. | #3 Balance - Internal Flow - Mass Flow & Model Support System as per USCEC Dwg. #14-00085 Shts. 1 thru 6 | | $4200 | |
| | 1 | ea. | #4 Balance - Assembly - W.T. bldg. Model Support System as per USCEC Dwg. #14-00062 Shts. 1 thru 7 | | $1000 | |

Notes:

1. Subject to inspection and acceptance at Vendor's Plant by USCEC Representative and/or NAMTC Technical Representative.
2. One (1) each Taper Plug Gage as per USCEC print #14-00026 to be supplied for final inspection by USCEC.
3. Delivery required within 10± calendar days after receipt of order.
4. Please submit quotation in duplicate.
5. Please return prints with your written quotation.
6. It is requested that BIDS be submitted seperately for each item. Vendor may additionally quote as a combined unit.

F.O.B. Los Angeles Terms 2% 10 days Delivery dates given above are to be effective from date purchase order is issued by us and all prices and terms quoted above. Order will be placed on an F.O.B. University basis unless otherwise indicated.

s/ Lee M. Springer

Vendor

By Date

Form 0163-4-56-10M

RETAIN ONE COPY FOR YOUR FILE

Mr. MULTER. Mr. Smith, any questions?

Mr. SMITH. No questions.

Mr. MULTER. Mr. Robison.

Mr. ROBISON. Mr. Ward, under your interpretation of the existing definition of "proprietary data" as set forth in ASPR——

Mr. WARD. 203.1.

Mr. ROBISON. Thank you. What would your opinion be as to the percentage of the mass of material that you have that would actualiy qualify under that definition of "proprietary data"? Can you give any guess as to the percentage?

Mr. WARD. The percentage of our equipment——

Mr. ROBISON. Of your data.

Mr. WARD. Of our data?

Mr. ROBISON. Of your mass of data.

Mr. WARD. Which qualifies under that?

Mr. ROBISON. Under that definition. Would it be very small, in other words?

Mr. WARD. It all does. The definition is—I do not know exactly what you mean.

The proprietary rights definition in ASPR IX, part 203.1, is very limited. You are allowed as proprietary information that which you essentially cannot give away anyway, and that which can be put on a piece of paper in one form or another is not regarded as proprietary.

It is such a hard question to answer, because you are looking at that, you can say practically nothing except what we are thinking. Under that definition.

Mr. ROBISON. You think a percentage as small as 2 percent, or 5 percent, something in that area?

Mr. WARD. They cannot take our thoughts away. What part that is, I really would not say. I mean I am unable to say. It robs us essentially of our ability to do work.

Nothing that you can write down is regarded as proprietary under ASPR IX, part 2, if that is what you mean. There is nothing that you put on a drawing which is proprietary according to that requirement, and we do produce good drawings, so this means everything we do is on the drawing but none of it is regarded as proprietary, so you could say zero.

Mr. ROBISON. Zero.

Mr. WARD. We disagree with that. We feel that the proprietary requirement for the military should be the same as it is under the common law.

Mr. ROBISON. What percentage would it be under the common law?

Mr. WARD. I would say 99 percent of it. We do have, and have consistently had, smaller research and development contracts with the Air Force under CPFF basis, wherein they are sponsoring research and we relinquish all rights under the proper provision.

Mr. ROBISON. In your opinion, does the contracting officer with whom you do business always know whether he really wants or whether the Government really needs this proprietary data, or is he perhaps being a little excessively cautious as to what the Government may need?

Mr. WARD. Well, I rarely see the Government contracting officer because our position is usually one of a subcontractor or a subsubcontractor. In our dealings directly with the Government, we have had no particular difficulty with the contracting officer.

Mr. LENT. If I may, I think I can reply to your question more directly. The answer is "Yes," they have an awful time. There is no real policing within the military services as to what type of information is really needed, and so there is a tendency to go overboard in requesting it.

Let us say that a maintenance officer desires certain information in order to maintain the equipment in the field or in use. And so rather than to ask for just the information that he needs to maintain the equipment, he will ask for complete design drawings or detailed drawings, in which tolerances are outlined and all data detailed.

And so, if you refer again back to the policy of the Defense Department, you will find that they state that it should not be the requirement of the military to get all of this information. That only that information that they require should be obtained, but there is a tendency on the part of all people to ask for more than they need. Now, this is not the contracting officer that is requesting it. The contracting officer is performing the service for the organization that requested it.

So the answer to your question is, "Yes; there is altogether too much requested."

Mr. WARD. I was only answering your specific question in relation to us. We do very little direct contracting with the Government, so I was only answering your specific question as it applies to our company.

In general, I agree with Mr. Lent that this has been a very serious problem.

Mr. ROBISON. The case you itemize, I think it is case No. 1, in which an additional clause was added to the contract, do you have any opinion as to whether or not that could be written into these regulations, or something along that line, that might be helpful to others?

Mr. WARD. I would hesitate to state directly right now that that clause is a perfectly satisfactory one. I cannot say that it was satisfactory for that procurement and something like that. I would think it would be satisfactory. I believe that it is quite possible to sit down with the procuring agency and arrive at a satisfactory paragraph defining what our rights are.

Mr. ROBISON. On a case-to-case basis?

Mr. WARD. I believe that it can be done on a more general basis than a case-to-case basis. I believe that the case-to-case basis is uneconomic. We went through one which is our first case. It was a 30-day litigation at a time when time was of the essence, and for 30 days we could do no work, and this was 30 days right in the middle of the Polaris program when the Polaris was in real difficulties for this particular piece of equipment and we could do nothing, and I think that is very unfortunate.

Mr. ROBISON. That is all.

Mr. MANESS. Mr. Ward, on page 15 of your prepared statement you indicate that the successful bidder ignored your patentable items and proceeded to produce your items and then you continue on about an Air Force contract in which you instituted suit against the West Coast Research Corp. Did you institute suit against the Government in the Court of Claims?

Mr. WARD. No; we never did. This is far too drawn out and expensive a litigation for a small company to undertake. We simply had to put up with it.

Mr. MANESS. You just dropped the suit against the West Coast?

Mr. WARD. That is correct.

Mr. MULTER. In your statement you state the suit was blocked.

Mr. WARD. Essentially our suit against the West Coast is blocked. There is nothing we can do. Maybe the legal terminology is not proper there, but our suit against the West Coast Research was blocked because we had no way of suing them legally because title 28, United States Code, section 1409 states we have to sue in the U.S. Court of Claims, so we had no recourse whatever to the West Coast company.

Mr. MULTER. That is because of the statute?

Mr. WARD. That is because of the statute.

Mr. MULTER. You were ill-advised to start that suit in the first instance. Because if you started your suit, you should have brought it against the Government in the U.S. Court of Claims.

Mr. WARD. That is very true. We do as we can and in this case we instituted suit against them and got them to agree to no longer infringe, and they were at the same time infringing on other contracts.

Mr. MULTER. Instead of saying "blocked," you mean you settled your lawsuit?

Mr. WARD. We settled it, but with no compensation, if that is a settlement.

Mr. MULTER. You did get an agreement from them they would no longer infringe?

Mr. WARD. We got an agreement from him he would no longer infringe when he made products that were not for the U.S. Air Force.

Mr. MULTER. Mr. Dalmas.

Mr. DALMAS. No questions, thank you, Mr. Chairman.

Mr. MULTER. Thank you very much, Mr. Ward.

(Army comments on Mr. Ward's testimony appear in app. No. 4, on p. 178; Navy comments in app. No. 5, on p. 182; and Air Force comments in app. No. 6, enclosure D, on p. 193.)

Mr. LENT. Mr. Chairman, before calling the next witness, I would like to introduce for the record, if possible, a more comprehensive answer to Mr. Dalmas' question this morning regarding licensing.

To bring it to your memory, you questioned Air Logistics about whether they had to go to the Air Force to license or if they could have this on their own. The answer, as Mr. Marcheschi gave it to you, is that they did not have to go to the Air Force.

However, I should like to read to you from the ASPR on this subject, and I quote:

> The acquisition by the Government of proprietary data developed at private expense may be unnecessary where the primary source is willing to establish other sources by direct contractor licensing arrangement without Government participation.

And so ASPR recognizes that this is a way in which an individual manufacturer can protect his proprietary data by licensing to another contractor.

Now, in going to the Air Force on a specific case like this, you would not go because you were required to do so. Because after all, it was your own development, your own property, you can do with it as you wish, but their intention in going to the Air Force, agreeing prior to the act of licensing was for negotiating purposes to further enable them to protect their proprietary data.

The next witness that I would like to ask permission of the Chair to recognize is Mr. Kenneth Hackman, who is the president of Southwest Research Products of Arcadia, Calif.

In preface to Mr. Hackman's testimony, and in going back to our discussion this morning of what do you pay for on a CPFF contract for a B–52, Mr. Hackman runs a company very, very successfully that deals in such things as bearings, and they have an important effect, Mr. Chairman, on the effectiveness of the B–52 bomber, and so even though it seems like a very minor item, it is the difference between safety and danger.

Mr. MULTER. Mr. Hackman, will you identify yourself, giving your full name, residence address.

## TESTIMONY OF KENNETH V. HACKMAN, PRESIDENT, SOUTHWEST PRODUCTS CO., MONROVIA, CALIF.

Mr. HACKMAN. Mr. Chairman, my name is K. V. Hackman. My home address is 1124 Rancho Road, Arcadia, Calif. I am president of the Southwest Products Co., a small independent business engaged in the research and manufacture of proprietary bearings for special applications. Since 1945 this company has been engaged in the manufacture and development of "Monoball" plain, self-alining bearings (Patent No. 2,626,841) and other related proprietary items.

In the testimony following I will present to you, in chronological order, the actual details of the difficulties I have encountered.

Under design competition for a major airframe, we designed a bearing for the main gear of a heavy transport aircraft. Out of the five bearings submitted for test by five manufacturers, ours was the only bearing to meet the prime's qualifications for this item. A U.S. Air Force Government agency claimed to have an equal design and let out procuring bids for our bearing. It was then determined that procurement was made on prints from our proprietary item.

In January 1954, in response for an invitation from Douglas Aircraft Co., Inc., engineering department, Long Beach, Calif., we undertook to develop, at our own expense, a bearing capable of meeting their requirements of 4,000 landing cycles per Douglas Aircraft Co. engineering specifications. The Southwest Products Co. bearing P/N BSR–40150–GC was the only bearing that proved adequate to meet the requirements per Douglas Aircraft Co. test report No. LB–16984 of 4,000 hard landings.

Southwest Products Co. has been selling these bearings and making deliveries since January 1957 and also to Cleveland Pneumatic Tool Co. since May 1957. The Cleveland Pneumatic Tool Co. being a subcontractor to Douglas Aircraft Co., Inc., and prime contractor to the U.S. Air Force, requested a substitution from Douglas Aircraft Co., Inc., for the Southwest Products Co. bearing BSR–40150–GC end-use in the C–133 main landing gear shock strut and was denied any substitution for production unless the Cleveland Pneumatic Tool Co. would conduct tests to obtain a bearing which would satisfactorily pass the same required operating conditions as conducted by the Douglas Aircraft Co., Inc.

Douglas Aircraft Co., Inc., has approved the Cleveland Pneumatic Tool Co. drawing, part No. R–9407–G strut assembly, Aerol, calling out the Southwest Products Co. bearing P/N BSR–40150–GC as the only part approved and there is no, "or equal" callout at this time or any time in the past, on this strut assembly drawing.

On the 13th of July 1959, we received a request for proposal RFP–09–603–59–1886 containing eight items of which the second item was 3120.540–9886 bearing, plain, self-alining, and so forth, application C–133, Southwest Products Co. P/N BSR–40150–GC or equal. Application: 9407–G Strut Assembly C–133 Aircraft.

We returned our RFP–09–603–59–1886 on the 16th of July 1959. On the 27th of November 1959, we received a letter on the subject RFP–09–603–59–1886 stating that the awarding for item Two was made to U.S. Bearing Corp., North Hollywood, Calif., for 315 pieces of our bearing assembly, the U.S. Bearing Corp. part never having

been qualified by Douglas Aircraft Co., Inc., engineering department, Long Beach, on an "or equal" basis.

Under design competition for a major airframe, we designed a bearing for a transport aircraft. A U.S. Air Force Government agency claimed to have an "equal" design and let out procuring bids for the bearing. It was then determined that procurement was made on prints from our proprietary item.

In October of 1950 in response to an invitation from the engineering department of Boeing Airplane Co., Seattle Division, Seattle, Wash., we undertook to develop, at our own expense, refined rod end bearings, part numbers BRE–8110–L and BRE–8115–L, capable of meeting their load requirements, per drawing 6–21799.

Southwest Products Co. has been selling these rod end bearings and making deliveries since January 1951 to Boeing Airplane Co., Seattle, Wash., and Iron Fireman Manufacturing Co., Portland, Oreg.

We have been supplying these rod ends under RFP contracts to the U.S. Air Force up to December of 1958.

On the 16th of January 1959, we received a RFP–09–603–59–1346 containing only one item, which was 3120–661–8909, bearing, plain, rod end, Southwest Products No. BRE–8115–L, application on the Boeing Cargo Transports (C–97 and YC–137) and Bombers, including the B–29's and B–50's.

We returned RFP–09–603–59–1346 on the 16th of January 1959.

On the 6th of April 1959 we received a Notice of Award RFP–09–603–59–1346 which was made to U.S. Bearing Corp., North Hollywood, Calif., for 2,500 pieces of our rod end bearing assembly, No. BRE–8115–L, the U.S. Bearing Corp. part never having been qualified by Boeing Airplane Co., engineering department, Seattle, Wash., on an "or equal" basis. Boeing Airplane Co. print 6–21799 in 1950 and up to the present writing of this letter has never been approved on an "or equal" basis.

On the 15th of June 1959, we received a RFP–09–603–59–1788 containing five items, of which the second item was 3120–661–9581, bearing, plain, rod end, and so forth, application on the Boeing Cargo Transport (KC–97G) our No. BRE–8110–L or equal.

We returned RFP–09–603–59–1788 to the U.S. Air Force on the 19th of June 1959.

On the 25th of September 1959, we received a Notice of Award RFP–09–603–59–1788 which was made to the U.S. Bearing Corp., North Hollywood, for item 2, 3,145 pieces of our rod end bearing assembly, No. BRE–8110–L, the U.S. Bearing Corp. part never having been qualified by Boeing Airplane Co., engineering department, Seattle, Wash., on an "or equal" basis. Boeing Airplane Co. print 6–21799 in 1950 and up to the present writing of this letter has never been approved on an "or equal" basis.

This is just a few of the many cases of the armed services procurement having taken over proprietary (product) drawings and submitted them for open bid.

Mr. MULTER. When you say these were returned with request for proposal, you mean you returned the request for proposal together with a bid?

Mr. HACKMAN. Yes; it is a standard RFP bid in which we put our price and delivery.

Mr. MULTER. In this instance you put a price on it and returned it and indicated what it would look like if you wanted to have a contract?

Mr. HACKMAN. Yes; if you will notice the dates, we sent our quotation for bid right back within a matter of days, but the bid was not awarded until sometime later. In fact, they asked for an extension of the awarding of the bid over the due date.

Mr. MULTER. You say, it was in the early part of your statement, it was determined that the procurement was made on prints from your proprietary item. How was that determined, and who made that determination?

Mr. HACKMAN. I will read you a letter from the U.S. Air Force dated the 15th of June 1959 from Wright-Patterson Air Force Base:

GENTLEMEN: This Headquarters has requirement for one non-produceable blueprint of your part number BSR–40150–GC, bearing to be forwarded to the Commander, Mobile Air Materiel Area, Attention Mobile Air Force Base, Alabama, marked for Requisition No. 30C–59–1646 dated the 28th of April 1959. The present intended use of this data is repair and inspection purposes. If this data is furnished without cost, advise if the data may or may not also be reproduced and distributed for governmental purposes, including competitive procurement.

We checked in the blank "may not." Next paragraph:

If there will be a charge for furnishing the above data, it is requested that shipment be withheld pending notification of intent to procure and that the following information be furnished for invitation of procurement action:

"(a)" under this paragraph states:

Contractor (is) (is not) willing to accept the data clause, ASPR IX–203.1 and ASPR IX–203.2 in the purchase for the data.

Mr. MULTER. What was the date of the letter to you?

Mr. HACKMAN. The 15th of June 1959.

We also on the RFP——

Mr. MULTER. Just a moment, please. How could that letter of June 15 and your answer to that have anything to do with the award that was made pursuant to a request for proposal on January 16, 1959, which was awarded on April 6?

Mr. HACKMAN. We furnished the same drawings to the Douglas Aircraft Co., and the fact that on the RFP it had the rock hardness of the bearings indicated they had to have the drawing to get the information. I can read the RFP data, I believe I have it here.

Mr. MULTER. When did you submit it to Douglas?

Mr. HACKMAN. I believe it was sometime in 1957.

Mr. MULTER. You advised Douglas that you were retaining the proprietary rights?

Mr. HACKMAN. Yes, sir, it is right on our drawing.

Mr. MULTER. Did you complain then to Douglas?

Mr. HACKMAN. And Douglas recognized this. In fact, Douglas will purchase these bearings only from us at the present time.

Mr. MULTER. Did you pursue the matter with Douglas to find out how the Air Force got your drawings that you had submitted to Douglas?

Mr. HACKMAN. We did not take that matter up with Douglas.

Mr. MULTER. How do you know that Douglas did not submit a copy of that without your claim of proprietary rights to the Air Force?

Mr. HACKMAN. We have no way of knowing.

Mr. MULTER. I think it should have been simple enough to inquire from Douglas. I do not think you have a right to blame the Air Force for copying something that you submitted to Douglas unless you can show how the Air Force got it.

Mr. LENT. Mr. Chairman, may I answer that?

Mr. MULTER. Did you make inquiry of the Air Force of how they got it?

Mr. HACKMAN. The Douglas Co. had five bearing manufacturers submit bearings. This is the only one that met their requirement. Now, if the other of the five people would have met the requirement, we would have been on a competitive price basis.

Mr. LENT. Mr. Chairman, I think it is necessary for you to understand what would happen here. Douglas, in developing the C–133 aircraft, upon delivery would be required to deliver all of the prints and all of the associated data with that aircraft. Then in the way in which the Air Force operates, a certain air materiel area would have the responsibility for further procurement of component parts of that C–133 aircraft.

So they would have the prints in their possession; the Air Force would have it.

Mr. MULTER. I understand that.

Mr. LENT. Then the Air Force would make a determination at the air material area there is no sense in going back to Southwest Products, "we can buy this item on a competitive procurement."

Mr. MULTER. Yes. But as I understand, the charge is being made that the Air Force reproduced Mr. Hackman's drawings without his consent and invaded his proprietary rights. Before we make that charge, I think we ought to inquire how did they get these drawings, where did they come from, and were they advised that these drawings represent proprietary rights of Mr. Hackman's company.

Mr. LENT. Well, now, you must remember that on a contract, a CPFF contract like this, and I cannot tell you for certain, but I would bet my bottom dollar on that, that they had an unlimited rights clause on it.

If you read the ASPR, Douglas is not permitted to submit or to determine that there is proprietary data in what they submitted. Again I bring you back to the fact that the subcontractor has no negotiating power, because all he submits to Douglas——

Mr. MULTER. The charge being made by Mr. Hackman is the Air Force invaded his rights by taking his drawings and submitting them and calling for competitive bids. Before we can make the charge that the Air Force violated his rights, we have got to show that the Air Force got those drawings with notice that they belonged to him.

Now, if Douglas was at fault, then his complaint should be to Douglas. If the Air Force was at fault, I think before we charge the Air Force with having invaded his rights, we ought to have some evidence that they were apprised of the fact that these were his

drawings. He knows it. You probably know it. We know it now because he told us, but who told it to the Air Force before they asked for bids?

Mr. LENT. So does the Air Force know it because it was so stated on the specification that it was the Southwest Products' product and that it was the only qualified product, but the Air Force decided there was an "or equal" product.

Mr. MULTER. That is what you say, Mr. Lent, and I understand you are saying that, but I would like to know whether the Air Force was apprised that these belonged to Mr. Hackman, to his company.

Mr. HACKMAN. It is right on the Douglas drawing right here.

Mr. MULTER. That is what you submitted to Douglas?

Mr. HACKMAN. No. This is a Douglas drawing which they submitted to the Air Force.

Mr. MULTER. That is what I am trying to find out. Is that what Douglas submitted to the Air Force with notice that these proprietary rights were reserved?

Mr. HACKMAN. The drawing calls out a BSR–40150–GC, Southwest bearing only. There is no other and/or equal on here. That means there are qualifications that this bearing has to take 4,000 hard landings. If it does not take 4,000 hard landings, it is not a qualified product.

Mr. MULTER. We are not dealing at the moment with whether the product is qualified or not; we are dealing with whether or not you own the proprietary rights to the product and the Air Force was on notice they were yours.

Mr. HACKMAN. They had to have the information off our drawings in order to submit to an open bid so they got the drawings either from Douglas or from our drawings on some other previous contract. We have sent these bearings to the Air Force prior to this particular date.

Mr. MULTER. Well, I do not think it is fair to make a public charge at this time, because they may have been sent. I think you should be prepared to say that they were sent and when they were sent and let us know what was on the documents that were sent to them.

Mr. LENT. Mr. Chairman, this can be determined, and if we may have the permission to submit it to the committee for the record, we should like to do so.

(This information appears in app. No. 12, on p. 211.)

Mr. MULTER. Certainly. And since we have it identified by the RFP number, I think that the Air Force can check into it, too, and advise us accordingly at a later time as to what the facts are.

(Air Force comments on Mr. Hackman's testimony appear in app. No. 6, enclosure E, on p. 194.)

Any further questions?

Thank you, Mr. Hackman.

Mr. LENT. Thank you, sir.

Mr. Chairman, the final witness of the Strategic Industries Association has not shown up. I assume he has been weathered-in in New York or something. We have copy of his testimony and with the Chair's permission we would like to submit it for the record.

Mr. MULTER. That is H. Dudley Wright?

Mr. LENT. Yes, sir.

Mr. MULTER. All right. His statement will be made a part of the record at this point.

(Mr. Wright's statement is as follows:)

TESTIMONY OF H. DUDLEY WRIGHT, PRESIDENT, ENDEVCO CORP., PASADENA, CALIF., ON PROPRIETARY RIGHTS

Mr. Chairman, members of the subcommittee, and guests, in order to make this report philosophically clear, I would like to briefly review our company's history. Endevco Corp., of which I am the president, began active operations and paid its first income tax in 1952. Fortunately, we have paid income tax every year since that time because we have been a profitable company. Our current annual volume of business is approximately $3 million.

Our company elected to expend its efforts in a very highly specialized segment of the electronics industry. We manufacture mechanical instruments that convert pressure, force, and acceleration into electrical energy. The electrical energy generated by these instruments is recorded by tape recorders, transmitted by radio waves, and other recording media in order to measure the amount of pressure, force, or acceleration experienced in engines, missiles, and all mechanical devices. These instruments record the performance of the device being tested or predict the weak link in the design.

This is, indeed, a narrow segment of the electronics industry and is very highly specialized. We make (as a result of company-sponsored continuing development) materials that generate a voltage when squeezed, as a result of pressure, force, or acceleration. The basic ceramic materials that generate the voltages are very similar to the ceramic of a teacup but we process the material in very special ways in order to produce the effect that generates the voltage when the material is squeezed. This phenomenon is called piezo electricity (piezo from the Greek, to squeeze). This piezoelectric material is the heart of the devices we manufacture.

The quality of the devices that we produce is determined by the ability of this ceramic material to provide an accurate answer under high temperatures, high humidity, and other environments. There are three companies in the United States who produce the basic piezoelectric material and build instruments of the type we manufacture. We are one of them. The total world market for this type of product is approximately $8 million annually. We enjoy our proportionate share of the total market. In fact, we are probably the biggest company in this field. We limit our efforts specifically to this very highly specialized segment of electronics and we supply standard instruments; we do not perform development-type contracts.

The missile development programs account for a substantial portion of our business because it is here that the designer needs our instruments in order to predict failure and measure ultimate performance.

In March 1958, the Bureau of Ships required an accelerometer to measure vibration that would operate at the high temperatures encountered in missile nose cones. The Bureau of Ships wrote a specification for the design and development of an accelerometer that would operate at the elevated temperature of 1,000° F. The procurement officer submitted this request for quotation to those companies who were skilled in the art of manufacturing accelerometers of this type but also included other companies on the request for quotation list who were not at that time skilled in this art.

At this time our company was producing a standard accelerometer for commercial customers that would operate satisfactorily at 500° F. We had produced at least 1,000 units that were being used successfully by the major technical institutions in the United States. We studied the Bureau of Ships requirements for an accelerometer that would operate in the 1,000° F. environment and reported to them that there was not available a wire to use at this temperature. As a result of our report and the reports of our competitors, the Bureau of Ships reduced its temperature requirement to 800° F. We applied our best engineering judgment and knowledge in this field (learned by producing our standard 500° F. accelerometer) and proposed that our standard accelerometer could probably meet the 800° F. requirement. At this time there was no other U.S. manufacturer who had been able to produce an accelerometer capable of accurate operations at even 500° F. Our closest competitor produced a unit capable of operation to 350° F. I report this fact because, objectively speaking, we were the most technologically advanced of the companies engaged in this specialized area of technology.

The Bureau of Ships wished to order one unit and, after approval, order a quantity of four units. We offered to perform all the qualification tests and modify our standard accelerometer to operate at 800° F. for $8,150. Please realize that we were planning to modify a standard product to meet this specification and, therefore, it is self-evident that we would not be required to begin a complete developmental and design program in order to satisfy this need.

Any company, unskilled in the manufacture of accelerometers at that time, would obviously incur developmental and research costs required in order to provide them with enough knowledge to design a satisfactory instrument. Let me repeat, our company was, at that time, the most advanced in the State of the high-temperature accelerometer art. We had produced at least 1,000 accelerometers of this type which were operating successfully and our engineering knowledge of this art left little doubt that we could satisfy the 800° F. Bureau of Ships' requirement.

The Bureau of Ships stipulated that we must give them drawings and manufacturing data of the product that we would supply to them. We refused to supply this data because we wished to protect our proprietary rights in the design of the accelerometer, the crystal materials that were used in the instrument, and the methodology required to produce an instrument of this type. As a result of this refusal, our proposal was not considered and another company was granted the contract.

If one of our competitors had received this contract, I would not stand before you today but the company to whom this contract was awarded had no prior experience in manufacturing accelerometers of the type needed by the Bureau of Ships. Instead, it was necessary for the contractor to develop its methodology, learn how to design an accelerometer, learn the methods of manufacturing crystals, and generally to learn the technology that we had developed over a 6-year period of continual research and development.

It might be wise at this juncture to explain that our company has never accepted a development contract from either a commercial or a governmental customer. We have developed our products with our own money. I am certain that if you gentlemen were either the stockholders or the employees of our company, you would consider the management imprudent if they gave away information which would permit others to manufacture our products in competition with us. This is particularly true when you realize that the drawings and manufacturing data required by the Bureau of Ships would include information about our standard product designs which were developed by the use of company funds prior to the time of this request.

Now, let me speak about the results of the Bureau of Ships' decisions. A recent discussion with the technical staff of the Bureau of Ships reported that the company who received the contract was never successful in building an accelerometer capable of accurate operation above 700° F. One year and a half after the granting of this contract, the Bureau of Ships had not received the accelerometer they needed. The appointed contractor had failed to supply a satisfactory instrument for their project and the contract was terminated at the convenience of the Government.

In summary, the Bureau of Ships had a specific requirement for a highly specialized type of accelerometer. The Bureau of Ships did not use the best know-how and technology available because they required the supply of company confidential and proprietary information. The Bureau of Ships' program was seriously delayed and the contractor ultimately failed to supply the needed instruments.

In the present race of technology where we are competing with the world, we must employ the most highly specialized knowledge and talent that we have available in this country. If we are to develop and produce the products that are needed commercially for world consumption and protect ourselves against aggression by technological advancements, we must utilize fully those companies and persons who are the best qualified. The best qualified companies or persons in the highly advanced technological fields today are, naturally, people with experience and know-how in a specific area of interest. These specialists, by virtue of their past experience, have developed many techniques which are proprietary. If they are prudent companies or persons interested in retaining their proprietary information, they would refuse to accept contracts which require the transmission of manufacturing drawings, methods of manufacture, and other proprietary information. Under present procurement regulations, if these potential contractors refuse to supply proprietary information to the Government in connec-

tion with contracts, they would be denied the opportunity to fulfill the contracts and the Government would not avail itself of the best available skills.

Mr. LENT. Mr. Chairman, with Mr. Wright's testimony, that concludes the SIA presentation.

I would like to comment on it and that I would hope we have been able to demonstrate to you yesterday and today that the representatives that have appeared before you are responsible businessmen; that they own or operate companies that are creative and that are very essential to the defense effort of our country.

Also, you will find that each and every one of them desires no preferential treatment from the Government or from the Congress as to their position in the economic and commercial world.

The only thing that we do ask is that we be given an opportunity to do business under a free enterprise system on a fairplay basis. We do not, for instance, understand why there should be any difference between the Defense Establishment's definition of "proprietary rights" and those definitions which are contained in common law and the law of trade secrets. We believe that this is having a very detrimental effect of the creativeness of industry, and that if it is permitted to continue, that it shall eventually cause a very serious and damaging blow to our technological creativity.

Perhaps we have failed you in one respect that we have not been able to provide you with a definitive answer as to what can you, as chairman of this committee, as a Member of Congress, what can you do.

Again I repeat that I do not believe that legislation is necessary. However, I believe that an additional role for Congress is one of policing the actions of other Government agencies that are spending congressional appropriation money, and therefore if this money is being used in a manner that becomes coercive in nature in the negotiation process, then I do not believe that is a proper role for Government to play.

I believe that there is contained in previous regulations of the Air Force, specifically the Air Force procurement instruction which Mr. Pike, former Assistant Secretary for Supply and Logistics of the Department of Defense, canceled when he applied to all services the ASPR regulation. The definition contained in the former Air Force AFPI was, in our opinion, satisfactory, and we do not believe that industry would complain if that definition were used again.

An additional definition which may be used and which we would not criticize may be that which I read to you this morning from the procurement instruction of the Army Corps of Ordnance.

So we believe that the motivation to correct these shortcomings in our procurement process must be with the Defense Department, and that they can go a long way in correcting this and straightening out this bickering that is taking place between the industrial complex and the Military Establishment.

We would hope that Congress could see fit to encourage such action on the part of the Military Establishment, and let us go back to work in the job that we are best suited to, and that is the creation of products that are necessary and useful in the military world.

I should like to take this opportunity on behalf of the president of SIA and all of its members to commend you, Mr. Chairman, and the members of the committee, for the splendid way that we have been

treated, the fairness, and for the penetrating questions that you have asked, and we hope that we have contributed something worthwhile.

Mr. MULTER. Mr. Lent, and your witnesses, you have made a very fine presentation. This is your Congress, the Congress of the people of the United States. We are your representatives and part of your right to petition your Congress is doing just what you have done here in coming here to present your complaints to an appropriate committee; that is one of several ways of petitioning your Government for redress of grievances you may have.

It is our function to listen to you, and try to develop the facts rather than the opinions and the theories on the basis of which we can legislate or appropriate.

I need not remind you or the members of your association that our Constitution, I think very wisely, divides the operations of the Government into three segments; and while we have some control over the executive branch, we must never impose our judgment upon the operation of the executive branch. We can remonstrate with them, and try to get them to do things as we think are in the best interests of the country and in dealing with the Government agencies we can appropriate so they can do the full job, and we also have the right and the duty, if they initiate or set forth regulations that are not in accordance with the law or the intent or the policy of what the law should be, we have the right by law to change or revoke those regulations.

When it gets into the detailed operation of the department or departments, it becomes impossible for the Congress to do that. But I assure you that this committee appreciates the presentation you have made here, and at the proper time the departments will be asked to answer the various complaints that were made and to set forth their views.

If as a result of these hearings we can get either better regulation or better administration of the law or the regulation, we will accomplish all that you desire.

Mr. LENT. Thank you, Mr. Chairman.

Mr. Scott, will you identify yourself, Mr. Scott, your full name, residence address, and business.

## TESTIMONY OF DENHAM S. SCOTT, GARRETT CORP., LOS ANGELES, CALIF.

Mr. SCOTT. My name is Denham S. Scott. I work for the Garrett Corp. in Los Angeles, and my residence is at 1211 Georgina Avenue, Santa Monica, Calif.

I appreciate your invitation to be here. I will be as brief as possible.

By SBA definition, neither our parent organization nor any of our operating divisions or subsidiaries can be classified as "small business"; therefore, I am not now speaking on their behalf. By the same token, we are not eligible for membership in the Strategic Industries Association.

The problem before you today is an extraordinarily deep and complicated one. Your task is to dig out the facts. Because it is so complicated, you will undoubtedly unearth facts, fictions, and misunderstandings; and, when you have wisely recognized and discarded the fictions and the misunderstandings, I believe you will still be confronted with contradictory and irreconcilable facts between the an-

nounced procurement policies and the actual practices of the Department of Defense.

Therein lies the source of the trouble.

To avoid wasting your time on red herrings, I wish to narrow the subject matter down by specifically excluding certain related areas. The first of these are the procurement policies and practices of NASA and AEC; the second is the protection afforded to patenable inventions. Both of these are very interesting and controversial subjects, but I am eliminating them from these observations. We are, therefore, speaking of the Department of Defense's handling of the alleged proprietary rights of small business in nonpatentable technical information.

At the outset, let me say that there is ample evidence to indicate that Congress is well intentioned toward small business. This is as it should be, and I know no man who disputes the worthiness of the cause. Acts to aid small business have been passed, and others are pending. These reflect the thinking of sincere, and earnest men.

And yet today, we have the spectacle of thousands of intelligent, responsible American small businessmen complaining that it is folly for them to engage in defense work, and that the Government imposes conditions that are both confiscatory and destructive to small business, and so forth. If they are right—and I am convinced that they are—then it looks as if Robert Burns had the answer when he wrote that "the best laid plans of mice and men must sometimes go astray." (Anglicized version.)

The question therefore is, "What caused the backfire?" Let us not waste time by indulging in recriminations. Honest mistakes are always pardonable and correctible.

Before attempting to get at the facts which would either prove or disprove their case, the question should be asked, "Who in small business is complaining?" The answer is the small businessman who has products of his own design to offer.

Having isolated him, I think we should take a good look at him. In the first place, his name is legion. There are many thousands of him throughout the United States. In the second place, he is capable of and should be making a vital contribution to our defense posture.

Big business has no monopoly on brains. And, in the third place, in today's inescapable scheme of things, his much needed contribution logically and properly sets him in the role of a vendor at some echelon of the normal subcontract processing of defense contracts. He is not unhappy about this. His business is based upon and geared to selling his products to the using industry.

Typically, he wants to know what the defense industry needs, so that he can direct the ingenuity and capability of his organization to the problem of coming up with a design which outperforms his competitors. It is the prime contractors and their subcontractors who are his logical and, in many cases, his only potential customers.

Regardless of what situation might prevail for the prime contractor, as regards Government financial support for research and development, our typical small businessman must dig into his own pocket to finance the sales promotion and the brainwork necessary to design, produce, test, and refine the specialty that will best solve a given problem. This he does in an atmosphere of keen competition.

These efforts are successful only when he comes up with the best offer obtainable. The Government does not reimburse him one penny for his failures, neither do they underwrite any part of the expenses of his successes. The popular misconception that the Government pays for all of the development in weapons systems and other programs is a monumental piece of fiction. Mr. Small Businessman believes that since his blood, sweat, tears, and money were invested in creating an improved product, the Government should permit him to retain the same property rights in his engineering drawings as he would in selling such products to commercial customers.

It is at this stage that Mr. Small Business must face the stark realities of defense contracting. He now learns that he must inescapably become contractually obligated to conform to a bewildering maze of regulations, specifications, contractual clauses, PARO's, inclusions, tables, and "what nots," most of which he has no access to, and all of which stem from the Government with whom he has neither a contract nor a contact. By Government decree, they are fully applicable to him, regardless of which level or tier he occupies in the subcontracting structure.

He learns that his products cannot enter the Department of Defense inventory, unless and until he has accepted certain terms and conditions which are contained in the Government's contract with the original prime contractor. He discovers that he is automatically and simultaneously confronted with accepting the requirements of a specification (MIL–D–70327) (see app. No. 1, p. 169) and a regulation (ASPRIX, part 2).

The first of these tells him that he must prepare a complete set of technical data suitable for manufacture by others; whereas, the ASPR tells him that, if the Government determines from an examination of his drawings and process specifications that his design and know-how are discoverable by the process of reverse engineering, the Government will deem his drawings and processes to be nonproprietary and, therefore, the Government becomes free to use his drawings to shop around among those who have nothing to offer but machines.

He has no intention of allowing his honestly earned know-how to be turned over on a silver platter to his competition, and is convinced there must be a mistake somewhere. After all, he reasons, he is a representative of small business, with the brains and initiative to develop a needed item, and did so at his own risk and expense. Surely, there are laws and it is inconceivable that his own Government would confiscate his property.

He therefore looks around for the mistake and learns first that he must indeed prepare his drawings in accordance with MIL–D–70327, because the Honorable Perkins McGuire addressed a memorandum to the Assistant Secretaries of the Army, Navy, and Air Force on the 9th of April 1959 on the subject of MIL–D–70327—Drawings, Engineering and Associated Lists.

I quote pertinent excerpts from this letter.

> I have this day approved the subject military specification * * *. This specification is mandatory for use by the military departments in connection with (1) all production contracts, and (2) research and development contracts resulting in a design released for production * * *. The requirements of the specification are effective with respect to drawings prepared by the military and industry and its requirements are to be invoked by prime contractors with

respect to procurement by them from subcontractors and vendors * * *. It is requested that you advise this office that this specification has been implemented in your department in accordance with its effective date.

The Army, Navy, and Air Force, therefore, have clear instructions to invoke the requirements of MIL–D–70327 down through the layers of subcontracting. Each of these procuring services implement these by different methods, but each of them has adopted an inescapable system.

As an example, the Air Force currently calls out MCP 71–77 (see app. No. 2, p. 170) in all of its R. and D. and supply contracts. This document spells out that contractor's drawings and data must be delivered to the Air Force; must conform to the requirements of MIL–D– 70327; and must be in microfilm form with a supporting deck of punchcard accounting machine cards.

I quote paragraph 3.b. of MCP 71–77:

Vendor data requirements: The prime contractor shall provide in his vendor purchase order(s) or contract(s) a requirement for engineering data and punchcard accounting machine cards. The vendor data requirements shall be for a set of drawings and lists covering each vendor item and such revisions thereof as may be required throughout the production life of the purchase order(s) or contract(s). The vendor shall be required to comply with all requirements specified herein for the submission of data and punchcard accounting machine cards.

In searching for the mistake, or at least a possible escape, our small businessman finds out that he must prepare a package of data (MIL–D–70327) and that he must submit this data in microfilm form with a deck of cards (MCP 71–77). This does not bother him too much. He wants his products to enhance his reputation by rendering reliable service in field operations. He recognizes that Government personnel must catalog them, repair, overhaul, and service them. He is, therefore, quite willing to supply drawings for these purposes.

But, microfilm costs money, and so does the acquisition of the deck of cards. These may or may not have been figured in his original quotation price, but at all events, he reasons, it is a service that the Government is insisting on, therefore, the Government should pay for it. He, therefore, agrees to submit a set of technical data in reproducible form.

He has not yet found the mistake he was looking for, but in all probability he, himself, has just made a big one; because, if as is likely, the prime contractor is operating under a contract in which he was forced to accept the unlimited rights clause, then our small businessman has just fallen into a trap wherein he must accept the conditions whereby he, too, must supply his complete package of data, is prohibited from labeling any part of it as being proprietary, and he must agree that the Government can use this data for any purpose whatsoever.

The prime contractor is sympathetic but powerless to help him. The vendor has no privity of contract with the Government procuring service; and, even if he could present his case, the procuring service has merely implemented the requirements of a mandatory regulation, ASPR IX, part 2, and it, too, is unable to provide relief.

Still pursuing the mistake and having thus unwittingly stumbled into the unlimited rights clause of ASPR IX, part 2, our friend decides he had best study that document. He soon discovers that there

are two versions, one dated April 9, 1957, and the other dated October 15, 1958. He, in his role of subcontractor, stubbed his toe on the earlier version, because it is very much alive today since the primes are currently placing purchase orders under contracts containing it.

In his study of the two versions, he finds what he is looking for in the later version. There it is, in black and white, a beautiful statement of Department of Defense policy, most quotable—and indeed often quoted to inquiring Senators and Congressmen.

It reads like the answer to his prayer, as follows:

**It is the policy of the Department of Defense to encourage inventiveness and to supply an incentive therefor by honoring the "proprietary data" resulting from private developments and hence to limit demands for data to that which is essential to Government purposes.**

His faith is restored; he knew all along that the Government was well-intentioned toward small business; and here is the proof in the official policy statement. He interprets it as saying the Government will respect proprietary data by normally not asking for it.

This sounds good, but he thinks back to his recent bout with the DOD 70327 exercise and remembers the mandatory nature of the document. He correctly recalls that he picked up a firm obligation to prepare a complete set of technical data. He rereads the specification and finds the following:

**Paragraph 3.3.2. Delineate directly or by reference sufficient engineering requirements and characteristics for the item, such as material, dimensions, tolerances, form, finish, functional and interchangeability characteristics (electrical, mechanical, and other performance characteristics) necessary to enable the Government or contractors to procure or reproduce the item or obtain an adequate interchangeable substitute. Sufficient information to permit engineering evaluation and testing, complete service, maintenance, repair, adjustment, and setting shall be included.**

He then takes another look at paragraph 6.1:

**Intended use: Subject to rights in data acquired under the contract, engineering drawings and lists provided and revised under this specification may be used by the Department of Defense activities for design, procurement, manufacture, testing, evaluation, production, production and receiving inspection, overhaul, ordering and storage of replacement parts, inspection of items at overhaul, general maintenance of equipment, construction, survey, and wherever engineering drawings are needed.**

It would seem that the authors of this paragraph took no chances of overlooking anything.

There are two other very pertinent paragraphs in MIL–D–70327. They are:

**3.6 Submittal of design activity drawings, lists, standards, and related documents: In addition to the requirements of the contract or order for classes and types of drawings to be submitted (see 6.2), it shall be the responsibility of the prime contractor to include the requirements of this specification in contracts or orders with subcontractors and to insure compliance therewith.**

**3.6.2.2.2 Vendors drawings: Originating design activity drawings necessary to provide information on items or articles referenced on contractor design activity drawings shall be submitted through the contractor design activity or with the approval of the procuring activity directly to the destination by the originating design activity (with adequate reference to equipment on which used).**

The opening words of paragraph 6.1 intrigue him, "Subject to rights in data acquired under the contract * * *" What do they mean? He does not know what is in the prime contract. Certainly the subject

of rights in data were not included in his purchase order negotiations. If he has been the one in a thousand who has found the time to research all the fine print in the boiler plate of his purchase order, he knows he accepted MIL–D–70327 and thereby agreed to prepare a complete set of technical data, and he also agreed to accept the submittal requirements of MCP 71–77.

By this time our small business gadgeteer has wisely hired the services of a lawyer. Between them they arrive at the incredible but correct conclusion that the ASPR is based on the peculiar assumption that he will prepare two sets of drawings: the one which fulfills the requirements of MIL–D–70327, which although prescribed by the Government is not needed by the Government; and another which he must submit in accordance with MCP–71–77, and which need not contain proprietary data. He ruefully contemplates this additional expense.

The clue to this fantastic discovery is to be found in the following sentence extracted from paragraph 9.202.1 of ASPR IX, part 2.

> Generally it should not be necessary to obtain "proprietary data" to satisfy Government purposes.

The foregoing statement is highly suspect of being largely fictional, because for many years each of the procuring services has insisted on the necessity for a complete package of data for repair, overhaul, and emergency replacement purposes; and, to our knowledge, the Government personnel responsible for these functions have not changed their minds.

However, our friend and his lawyer seem to have found a chink in the maze of weirdly assorted contractual documents whereby they can negotiate, in order to prevent the Government from turning our friend's complete "know-how" over to those who would have a free ride on his brains and his investment.

The cruelest shocks of all are now coming to them. Their right to negotiate is largely theoretical. In practice our small business friend is low man on the totem pole and can, therefore, only negotiate with his direct purchaser, who of course is restricted by the terms of his contract. The following is an actual form letter, and is typical. It has been selected because of its brevity:

> GENTLEMEN: This is to advise that we cannot delete the rights in data unlimited clause in our referenced purchase order. This purchase order was issued under a Government prime contract which embodies ASPR–9–203.1 but does not include 9–203.2.
>
> Please acknowledge receipt of this letter by signing one of the enclosed copies in the space so provided below and return to the undersigned.
>
> Thank you.
>
> Very truly yours.

Perhaps our friends might be lucky enough to find that the prime contractor was successful in obtaining a contract which gave the Government only limited rights to proprietary data (including his vendor's proprietary data) required to be submitted under the contract. Surely, now he will find that the Department of Defense provided that incentive for the inventive which it proclaims to be its policy. Unfortunately, we have now hit the rudest shock of all.

By the very simple device of defining for its own purpose "proprietary data" in such a way as to exclude much of what is ordinarily

and by common law recognized as being a trade secret and therefore proprietary, the Government has invented for its use an almost empty definition which does not permit the contractor to restrict or withhold most of what he would ordinarily withhold.

The ASPR definition gives no recognition whatsoever to the fact that novel features of design could be proprietary and, therefore, should be protectable. It is based on the concept that, if in the Government's opinion, by an inspection and analysis of the contractor's drawings, his know-how could be discovered by reverse engineering, then there is no need for the Government or anybody else to go through the motions of actually performing the reverse engineering, and such drawings are, therefore, deemed to be a nonproprietary and hence can be handed on a silver platter to those seeking a free ride on our small businessman's brains, initiative, and investment.

It is obvious that with modern chemistry and metallurgy it can be argued that virtually all compositions of matter can be broken down; similarly, if enough pieces are measured and probability theories applied, tolerances can be determined. The Department of Defense, therefore, is using a unique definition and practice which disposes of the problem of proprietary rights by proclaiming them as virtually nonexistent.

The General Accounting Office is diligently policing the various procuring services to enforce the theory that the Government paid for the rights to use for competitive reprocurement purposes the millions of drawings, microfilm, and so forth which industry, large and small, submitted for the pittance cost of the paper and service.

Gentlemen, I have taken longer than I intended, but this is the story as to why there is today a very tragic and bitter unresolved disagreement between the Department of Defense and its suppliers.

I thank you. I close with this question: Wherein lies the incentive for any small business organization to be inventive in the interest of the Department of Defense?

I thank you, Congressman Multer, for inviting a representative of big business to speak on behalf of the most creative elements of small business, and I thank the subcommittee and the attendees for their patience and their indulgence.

Mr. MULTER. That is a very fine statement, Mr. Scott.

May I open with this question?

What would you do about it?

Mr. SCOTT. We must have a change, and obviously the place to start working is in the revision of the ASPR. One of the things that definitely needs revising in the ASPR is the definition of that which is proprietary.

There are other serious defects in the ASPR. The matter of identification which a contractor is expected to go to on that which he claims to be proprietary, as to how he is required to identify each element on each piece of paper—this is simply a virtually impossible task.

Mr. MULTER. Do you have any suggested language for a new definition?

Mr. SCOTT. I happen to be a member of a committee that is working on trying to come up with a proposed definition which we hope

would be the compromise that should be acceptable to both industry and the Government.

Mr. MULTER. I do hope it will be submitted to the committee when it is prepared.

Mr. SCOTT. If we may.

Mr. SMITH. I do not have any question, Mr. Chairman. But I would like to commend Mr. Scott for presenting testimony in a most understandable and interesting manner and I do appreciate your testimony.

Mr. MULTER. Mr. Robison.

Mr. ROBISON. Yes. I agree with Mr. Smith in saying that I have really enjoyed the witness' testimony, and it is unique in its clarity in bringing this problem down to every-day language that even a Congressman can understand.

Mr. SCOTT. Thank you, Congressman.

Mr. MULTER. Is there any specific case, Mr. Scott, that you want to tell this committee about?

Mr. SCOTT. I am a representative of big business. This hearing is for small business. I have many specific cases, but I brought not one. I did not think it appropriate.

Mr. MULTER. Well, this Small Business Committee very frequently looks to big business for guidance.

Mr. SCOTT. Well, we are certainly trying to help them all we can. The Garrett Corp. is spending 78 percent of our spendable dollars with small business. We get a lot of help from small business. I think all of the prime contractors, I mean the big boys, depend very definitely and lean very heavily on the ingenuity and capability of the types of companies that you heard from today.

Mr. MULTER. Your company being among the first 100 of the largest companies dealing with the Government, and particularly with the Defense Department, I think you can easily take the position you are beyond the point of possible retaliation if you gave us information that might reflect on somebody in the Department.

Mr. SCOTT. We are not afraid of retaliation.

Mr. MULTER. I am sure you are not.

Mr. SCOTT. We believe that at the working level—and I can speak on this with considerable confidence—in the Air Force, and what used to be the Bureau of Aeronautics and is now BuWeps, the people who must put the demand on us are not a bit in sympathy with it. If they could, they would protect small business, they would protect proprietary rights.

Mr. MULTER. By making it easier for small business, you make it easier for your own operation, and that is why I would like to have you, if you can, give us some specific instances of where this regulation has not worked out as it should have worked and where the policy which is so clearly expressed as being violated—can you supply any such instances? If not at the moment, another time, you can supplement what you have said to us and we would be very happy to have it.

Mr. SCOTT. I can supply such examples. I do not have dates, part numbers, and so forth, with me now. I would say that one of our major difficulties right now is that we do not know what to do with this second set of drawings problem. To force us with our hundreds of

thousands of drawings to adopt a dual drawing system is a sheer waste of time and money. We have been successful in negotiating also under the new ASPR, been able to obtain the limited right clause but with this we are required to isolate on each drawing that which the Government agrees to be proprietary, not that which we claim to be proprietary, but only that which they agree to, and then we must agree that at any time in the future the Air Force can declare that it is not indeed proprietary and therefore is no longer protectable.

We are faced right now with that problem, do we go to the extent of having to organize an engineering department that has to administer two identical sets of drawings, except one has been emasculated whereas the other has not. The emasculated drawings, I believe, are definitely not going to satisfy the requirements of the Government when they get them.

Mr. MULTER. On page 4, you referred to the promulgation of the MIL–D–70327 by the Assistant Secretaries of the Army, Navy, and Air Force on April 9, 1959. Was that not merely a reiteration of prior directives, or is that something new?

Mr. SCOTT. No, sir. Air Force and the Bureau of Aeronautics, which were traditionally the services with whom the aircraft industry dealt, they for many years were using a document known as MIL–D–5028. There actually were, I believe, about 150 different specifications governing drafting room practices that were currently being used by the various services. As far as the Air Force and Bureau of Aeronautics, they were using only one, which was MIL–D–5028.

The other services, depending on what arsenal or what bureau or what location, they were using various modifications, and I believe officially there were 158 or something like that.

Industry had protested that every time they got a contract with some other procuring service other than the Air Force, we found ourselves with a new requirement setting up new standards with respect to drafting practices. So very wisely, Mr. McGuire ordered that there be a common standard that must be mandatory for use by all of the procuring activities, that they could throw away the 158 and give us one.

Last June, 70327 became mandatory. During the year 1958, there were many conferences with industry and the Government, and we got a document which industry is not delightedly satisfied with, but on the other hand, it is undergoing revision right now.

Now, one very important change was made in that document, and that is with respect to the matter submittal of vendor drawings. In MIL–D–5028, there was spelled out a very clear option, that a vendor could if he so elected, send his drawings directly to the procuring service.

The change that has been made was included in what I read, and it now reads "when approved by the procuring activity," a vendor can send his data directly to the Department of Defense destination.

Now, this has taken the option away from the vendor, and if it is placed anywhere, it is now with the prime contractor who has no interest in fighting the vendor's battles for him with respect to obtaining Government recognition of vendor rights. I do not know that it makes a great deal of difference as long as the Government insists

on the unlimited rights clause because if this is the condition, then it does not seem to make too much difference whether they give them to the prime or not.

Under MIL–D–5028 the vendors were protected, they now are not nearly so well protected.

Mr. MULTER. Any further questions?

Thank you very much, Mr. Scott.

Mr. SCOTT. Thank you.

(Department of Defense comments on Mr. Scott's testimony appear in app. No. 3, on p. 174. Additional comments by Mr. Scott, Mr. Marschalk, and Mr. Lent appear in app. No. 13, on p. 212.)

Mr. MULTER. I understand Mr. Wright has now arrived.

Mr. WRIGHT. Yes, Mr. Chairman.

Mr. MULTER. Do you want to come forward, sir.

Will you identify yourself with your full name and address and business address.

## TESTIMONY OF H. DUDLEY WRIGHT, PRESIDENT, ENDEVCO CORP., PASADENA, CALIF.

Mr. WRIGHT. My name is Dudley Wright; I am president of the Endevco Corp., 180 East California Boulevard, Pasadena, Calif. My home residence address is 510 Meadow Grove Street, in Flint Ridge, Pasadena.

Mr. MULTER. We have already made your statement a part of the record, but you may summarize it or read it, as you please.

Mr. WRIGHT. I think I will summarize, because it is here for the—I will stick to the factual portion of it.

The basic type of question, or the point that I have here, is an actual statement of a case that did exist and we experienced in our company.

As a result of this, I feel that it is best that I give you some little idea of the company, what we do, what type of—why we feel that the procurement regulations prohibited really the Government getting the best possible product.

First of all, we began operations in 1952. We began as a small company, a few people, developed all of our own products, spent all of our own money in the development of all our devices.

We, fortunately, have paid income tax every year since, and our current annual volume of business is $3 million. We employ approximately 250 people in Pasadena.

We build mechanical instruments that convert pressure, force, acceleration, into electrical energy. People want this type of instrument in order to record pressure forces and vibration on magnetic tape recorders, or send them from radio, like from missiles to the ground, for recording and analysis of this data; and the primary reason to make these measurements is in order to predict the failure of the missile or whatever mechanical part one is testing in actual field service.

These devices are usually used in the early experimental phases. They are really what you would call a research type of tool.

This is a very, very narrow segment of the electronics industry, and very, very highly specialized. The heart of our device is a little piece of ceramic material about the size of your shirt button. In truth, the material itself is like a teacup, except that we treat it with very, very

special electrical forces which cause it to generate a voltage when it is squeezed.

The missile development programs require devices that make measurements of these various physical forces with a high degree of accuracy, under the environmental conditions that are usually found such as high humidity, high temperature, and high shock, for example.

We are one of—we are actually the largest company devoting its complete efforts to this area of interest and endeavor. The total work market is perhaps $8 million annually. Of this, as you can see from my prior statement, we enjoy a major part of it. There are two other competitors in the field.

In 1958, the Bureau of Ships—all of this general statement of what we do, and so forth, is just to give you a general understanding of the next specifications which I will bring out, and why we feel that the Government did not have the best contractor available to use in order to develop the device they needed.

In 1958, the Bureau of Ships required an accelerometer to measure vibration at very high order of temperature of 1,000° F.

Stepping back a moment, I said that the entire technology in our industry is trying to build an instrument that operates very effectively under very extreme environments.

The 1,000° requirement of the Bureau of Ships was proven to be really absolutely impractical at the present state of the art, because there wasn't even any wire available that would perform properly at that temperature.

However, after discussion and after working with them, it was generally concluded that 800° F. would satisfy their requirement and was within the foreseeable area of our development and other persons.

At this time, our company was producing an accelerometer that was successfully operating at 500° F. Our closest competitor produced a device that was capable of operation at 325° F.

Obviously, I make this statement on the premise that at this moment, I feel that we were probably the head of the state of the art; at least by all published data, we were. We agreed to test one of our standard accelerometers, modified in a manner that we felt would be satisfactory to produce the 800° F. and satisfy that requirement of the Bureau of Ships specifications.

We offered to perform all of the qualification tests and do this modification, and so forth, for $8,150.

Now, please realize we were planning to modify a standard product to do this job. The original request for bid was for a development contract. But we were quite certain that it did not require a development contract, but, instead, could be a standard modification.

It certainly is self-evident from that statement that we would not be required to begin a long and tedious development program, and that the Government would be able to take advantage of all of our prior knowledge in the building of the accelerometer that we then built.

Now, obviously, any company unskilled in this art would be required to incur substantial research and development costs in order to learn, first of all, the basic business of building an accelerometer, and, secondly, to learn to manufacture crystals and ceramic materials which had taken us some 6 years to gather at that time.

At this time, we were, I think it can be fairly stated, the most advanced, we produced at least 1,000 of these accelerometers successfully that had operated at 500° F., and we felt very certain we would be able to satisfy the 800° Bureau of Ships requirement.

Well, the Bureau of Ships stipulated we must give them drawings and manufacturing data of the product we supplied to them. We refused to supply this data, because we wished to protect our proprietary interest in the standard product which we had developed, again, you remember, with our own money.

As a result of this refusal, our proposal was not considered, and another company was granted the contract.

Now, actually, if one of our competitors had received this contract, why, I don't think that I would be here before you today. But, instead, a company totally unskilled in this technology received the contract, and they were required to develop completely the methodology of the crystal materials, how to design an accelerometer, even just learn how to test, which is a very, very substantial task.

I think that I have emphasized two or three times, in speaking, that we have never accepted research and development contracts; we have always paid for our own development from our own company funds. And I am certain if you gentlemen were my stockholders, you would want me to protect very strongly the proprietary rights that were created by the funds that were invested by you.

In a recent discussion with the technical staff at the Bureau of Ships, they reported that the company who received the contract was never successful in building an accelerometer that would satisfy the problem.

They obtained inaccurate operation at 600° F., the device was not usable. One and a half years after the contract was granted, the Bureau of Ships had not received the product they needed to carry on a development, and the appointed contractor failed. The appointed contractor certainly lost money, and the contract was terminated at the convenience of the Government.

Mr. MULTER. The particular contract you are referring to is No. 817–86023 (1734–F). Is that the one you are referring to, March 1958?

Mr. WRIGHT. Yes, is that the one I wrote on the small slip? Yes, that is correct.

Mr. MULTER. Let me ask you this, Mr. Wright.

Let's take you from the position you now hold as president of your corporation and put you in charge of the Bureau of Ships, and this company comes in and says, "Here, you need this accelerometer, and I will build it for you at $8,150 per unit, to do the job you want."

Mr. Lent comes in and says, "My company can do this job for you at $5,000, Mr. Bureau of Ships. We are going to do exactly the same thing you want, and all the specifications you indicated would be met, and the functional purpose will be filled."

What do you do, Mr. Bureau of Ships?

Mr. WRIGHT. Well, I think, first, I would do exactly what I do in my own company, when we select a vendor for anything that we are going to manufacture. We do not look purely at price. We look at the competence of the company involved, their technology in the area that we are interested in borrowing that technology, because we real-

ize that if we lose the time, that the time is just as important as the dollar that—is more important in actuality. If we lose time, by trying to teach a new vendor or have a yendor teach himself, then we lose a great deal of time, and that converts itself directly to dollars.

Mr. MULTER. What was the name of the company that did get the contract?

Mr. WRIGHT. This is not—this contract, incidentally, was a classified contract, classified as confidential, and I have not disclosed any portion of the confidential portions of that contract in this disclosure today.

I believe the company was Kearfott, which is a Division of General Precision Products.

Mr. MULTER. Continuing you as the gentleman in charge of the Bureau of Ships, before you made this award to this company, at whatever the price was Endevco Corp. quoted, made the facility and capability investigation that should and always is made, and found that this company apparently had the facilities, the competence, the capability, and the financial responsibility to do the job.

What do you do?

Mr. WRIGHT. Well, in the case of technology, or in this type of narrow specialized industry, I look to see whether they have had any prior experience in the field, and if they have not—I mean an engineer is an engineer. He can engineer any darned thing you can throw at him, but the way you are going to get the best product the fastest is by having an engineer who has done this job before.

Mr. MULTER. Do you think, Mr. Bureau of Ships, if you had given this contract to the Endevco Corp. at $8,150 instead of to the company that didn't perform, that the Appropriations Committee would have patted you on the back and said, "Well done," at the $8,150 in advance of the default, or would they raise the roof with you because you did that?

Particularly, when the one company, at a lesser price says, "We will give you all our details and specifications and drawings," and the other company says, "No, we won't?"

Mr. WRIGHT. Well, the other company who offers all of the details had nothing to lose. They were doing the development on Government funds.

Mr. MULTER. But how is the procurement officer to make his determination in a matter of this kind, and that is what we are dealing with now.

You say that the procurement officer should have given you this contract, instead of giving it to the man who defaulted on it. It is fine to look back at it and say, because the man defaulted, this proves you are right, and the procurement officer was wrong.

But how is he to know it in advance, when he is charged in the first instance by the law to give this to the lowest bidder?

Mr. WRIGHT. First of all, I think that from what little we know that was committed to us, that there was very little difference in the price between the two companies.

Mr. MULTER. Well, don't you think that the procurement officer was justified, under the circumstances, when he investigated and apparently the report indicated competence and ability and financial

responsibility, in giving the right to the company which said, "We will give you all the proprietary data we develop in connection with this?"

Mr. WRIGHT. I think if you follow a rule book, yes; but if you want to—if you are applying logic to it, this is exactly like going to a house painter to paint the portrait of your child. The two techniques are totally different. They are both painters, but that doesn't mean that you are going to have a decent portrait.

Mr. MULTER. If we go to two portrait painters, then, what do we do? I don't know enough about your engineering problem to know whether or not your accelerometer can be duplicated—a company that is apparently financially responsible with engineering capacity and facilities to do this kind of a job, and certainly the Procurement Officer ought to know whether or not this other company has the same kind of plant that you have, and the same kind of machinery, and the same kind of engineering.

Of course, you can't compare two minds and say they are alike, but when we are dealing with graduate engineers and licensed engineers who are apparently able to make their mark and hold on to a fairly responsible position in private enterprise, doesn't he have the right to assume he is going to get the product he is bargaining for?

Mr. WRIGHT. I don't think so. I mean he went to a company that had never built this type of accelerometer before, never before. Had no prior history.

Mr. MULTER. Well, suppose he had gone to—suppose this award had been made to the company that built the accelerometer which was able to perform at a maximum temperature of 350 degrees.

Would he have been justified in giving this contract to that company?

Mr. WRIGHT. I think, yes; at least they were involved in the methodology; they were involved in the business; they knew what it was; they knew what they were doing; and they knew the problem they were going to encounter.

Mr. LENT. Mr. Chairman, if I may add something I think it is important.

Why did all this thing happen? It all happened because of an unrealistic request for proprietary data on a product that is not only sold to the Government, but Mr. Wright can advise you that he sells to medical facilities, to universities, to all types of research and development facilities in industry.

Now, what is the difference, what right does the military have to demand all of his know-how for the price of one instrument?

Would you think that a doctor at the university at Maryland Medical Center would be entitled to that same right?

Mr. MULTER. That is part of the—one of the elements and one of the things that he is buying, the procurement officer is going to buy as he did in this instance. He is going to buy this item, together with the proprietary data, or he is not going to buy it from the man who won't sell him the data.

This is one of the things this company can sell or not, as it pleases. If it gets a good price for it, it will sell the data. Apparently, the other company felt that they could afford to deliver the data, together with the instrument, in exchange for the price.

Mr. WRIGHT. They didn't have anything to deliver, because they never had any proprietary development before that.

Mr. MULTER. You are asking us to-now sit in judgment on the competence of the procurement officer who let the contract?

Mr. WRIGHT. No. Basically, Mr. Chairman, we were told that the reason that this contract was not given to us was because we refused to give the proprietary rights.

Mr. MULTER. That is the point I make. You were not willing to sell your proprietary data to the Government. The other man was.

Now, performance indicates that he couldn't perform; but everything in advance of the default indicated he would be able to perform, or he would not get the contract. If they didn't find this other man that they felt was able to perform, financially responsible, and I am sure no one else had been on the scene, you would have gotten the contract on your terms.

It was only because they got better terms which included the delivery of the proprietary data that they let the contract to the other man.

Mr. WRIGHT. But here we were the preferred potential vendor for that contract. The Bureau of Ships would have gotten its product. It would have carried on its research and development program on schedule, if we had done it, because we have actually done it subsequent to this time. We went ahead and did it on our own hook.

Mr. MULTER. I can't dispute that what you are saying now is factually correct. I am sure the Bureau of Ships won't dispute it. But now we are looking back at what our experience has been.

I am trying to put ourselves in the position of that procurement officer when he is letting the contracts in advance of performance.

Mr. WRIGHT. If the demand for proprietary rights had not been unrealistic and required ownership, actual ownership, of the stockholders of the corporation, they would have gotten their product, they would have gotten it at a good price, and the subsequent cost of the units would probably be somewhat close to what our standard products were.

Mr. MULTER. The other company fell down—if it was lucky and had been able to solve the problem, and he would have been able to deliver, you would have patted him on the back and said, "You saved us some money and you did a good job"; isn't that so?

Mr. WRIGHT. Yes. I think if you apply logic, you apply logic to the man, if you say that you want an advanced development accomplished, and you go to a man who knows that field, he knows the problems in that field; you go to a man who has never done anything in that field, he doesn't know the problem in it—

Mr. MULTER. In affect, what you are suggesting, so that there should not be a repetition of this, that the ASPR should be rewritten so as not to require you to deliver proprietary data?

Mr. WRIGHT. Correct.

Mr. SMITH. Mr. Chairman, do we actually know that this other company was just as able to perform as this one? Can we assume that?

Mr. MULTER. I think it is to be assumed that every Government official performs his duty in accordance with the responsibility of his

office, and does that which the law requires him to do so. And Government procurement requires these officers, both by law and regulation, to make sure they are dealing only with responsible bidders; and by that, they mean not only financially responsible, but able to perform, with the facilities to perform.

Mr. SMITH. By the same token, if this regulation places the procurement officer in such a difficult position, without getting the proprietary data and he went ahead and placed it in some way that maybe he thought was, in his own mind, not as well qualified as one of these three firms, but he felt he might lose his job, I think things like that have happened, too, in Government regulations.

Lots of the boys follow regulations that they would just as soon throw out of the book, but they are afraid they will be bounced by the boys.

Mr. MULTER. At this point, we have heard part of the story, and we will hear from the Navy and possibly come up with an answer.

Mr. SMITH. Suffice it to say, if there is a better possibility of getting it from a qualified firm, whether they are your constituents or not, the Government should not waste a year and a half on an $8,100 job, when you are doing $3 million a year business.

It doesn't make sense to me. I wouldn't want to give away my stock, if I owned any proprietary interest, to get some competitor in business with me for an $8,150 job out of a $3 million gross a year. You wouldn't be president of this company for long, in my opinion, if I had the right to vote.

I think we will get the other half. I just didn't want you to go home feeling we were going to jump over you too hard.

Mr. MULTER. Mr. Maness calls my attention to the fact that this contract was not canceled for having been defaulted. It was not defaulted, but terminated at the convenience of the Government. We will have to get that complete story when the Navy testifies.

But in spite of my questions, I appreciate your position and I appreciate you are very properly protecting your company's interest, but I sit on this side of the fence, trying to protect the Government's interest.

I say that although my Republican friends call me a spender in an election year. [Laughter.]

Mr. SMITH. I never made such a statement as that. The chairman is a very able and honest individual, and is holding these hearings in a fine way, and I appreciate your going to all of this trouble in flying across the country to leave the sunshine of California.

Mr. WRIGHT. No, I came from New York, and it took me 4 hours to get here.

Mr. MULTER. Thank you very much.

(Navy comments on Mr. Wright's testimony appear in app. No. 5, enclosure No. 3, on p. 186.)

That concludes the witnesses scheduled up to this time. We will meet tomorrow in this room at 10 o'clock. The hearing is adjourned.

(Whereupon, at 4 p.m., the hearing was adjourned to reconvene at 10 a.m., Thursday, March 31, 1960.)

# PROPRIETARY RIGHTS AND DATA

THURSDAY, MARCH 31, 1960

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE NO. 2 ON SMALL BUSINESS AND
GOVERNMENT PROCUREMENT OF THE SELECT
COMMITTEE ON SMALL BUSINESS,
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 10:05 a.m., in room 1301, New House Office Building, Hon. Abraham J. Multer (chairman of the subcommittee) presiding.

Present: Representatives Multer, Smith of California, Robison, and McCulloch.

Also present: Irving Maness, subcommittee counsel; Katherine C. Blackburn, research analyst; Marie M. Stewart, clerk; and Victor P. Dalmas, adviser to the minority members.

Mr. MULTER. The hearing will please come to order.

We are pleased to have with us as our first witness this morning the Assistant Secretary of Defense in charge of Supply and Logistics, the Honorable Perkins McGuire. We will hear Mr. McGuire. He will introduce the other members of the staff, and then he will leave them behind to carry on as he goes to keep another important engagement.

Mr. McGuire, we are very happy to have you with us.

## TESTIMONY OF HON. PERKINS McGUIRE, ASSISTANT SECRETARY OF DEFENSE (SUPPLY AND LOGISTICS)

Mr. MCGUIRE. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I appreciate the opportunity to appear before this committee in response to your invitation to discuss the Department of Defense policy on the acquisition and use of data. This policy is stated in the "Armed Services Procurement Regulation" as "Section IX, Part 2—Data and Copyrights."

Our policy was developed after extensive coordination with industry and was first issued April 9, 1957. It was later revised October 15, 1958, also with industry assistance and coordination.

I may say that this is the first comprehensive Government regulatory attempt at defining policy in this field. It is most important to have good policy which defines the rights in data resulting from the rapid technological advances coming from both Government-sponsored and private research and development.

The salient points of the policy are that in research and development contracts, as well as in production contracts which have development of models as a principal purpose, we require contractors to furnish all data, including manufacturing drawings and specifications necessary for the manufacture of the resultant product. Standard contract clauses to accomplish this purpose are provided.

On the other hand, where a product is developed and marketed at private expense, it is not our normal policy to seek full manufacturing drawings, as an adjunct to a simple purchase of the product, if such drawings contain proprietary data, that is, trade secrets.

There are certain exceptions to this policy which Mr. Bannerman will cover in detail. We seek to encourage private invention of items which may have military usefulness and, hence, we would not normally try to establish additional competing sources of items using such privately developed designs unless (i) additional sources were needed to assure mobilization readiness, or (ii) additional sources were needed to avoid a demand for unreasonable prices, or (iii) the basic design contains no proprietary data, that is, trade secrets and, as a result, can be readily copied by others. If, for any reason, we need to acquire privately developed proprietary information or trade secrets, we negotiate for such data as a separate contract item and pay a fair price for it.

We consider that this limited protection which we give to privately developed proprietary data is the most advantageous and proper policy for us to follow. First, we have stated that this policy encourages private initiative, investment, and invention, making it good business practice to develop at private expense and produce items useful to the military departments. So long as need exists for the product and it is available at a reasonable price, the exercise of such initiative in a competitive free enterprise economy should result in the award of contracts until competing products appear.

Second, if we were to follow a different policy and demand full manufacturing drawings including privately developed proprietary data, without separate compensation, as an adjunct to each normal supply contract, valuable data of this kind would be refused by those contractors having the economic power to do so.

In other words, the pressure of economic necessity to comply with a policy of this kind would be exerted on the small contractor who needed our business so badly that he felt forced to give up these valuable property rights in order to get a contract. In our judgment, such a policy would be unfair, would tend to dry up private development, and would be contrary to the will of Congress.

Mr. Chairman and members of the committee, this concludes my statement. As you know, we are dealing today with a very technical subject. Accordingly, I wish to have the principal presentation of the Department of Defense made by Mr. Bannerman, the Director for Procurement Policy, who is most familiar with the technical phases of this subject.

Mr. MULTER. Mr. Secretary, we know you have another appointment and you want to get away. The committee would like to ask just one thing, and that is, when we conclude these hearings and we have our record complete, whether or not you would be willing to designate some member of your staff to meet with members of our

staff and review the entire problem, and determine in the light of the whole record, and probably invite members of industry to join at such informal meetings, to determine whether or not there cannot be some improvement in the overall administration of the policy?

Mr. McGuire. We would be very happy to, Mr. Chairman. I think this would be a most helpful suggestion. I think you will find, at least we believe, that a good part of the problem here is a matter of understanding.

Now, if this is the problem, and the regulations are so worded that they do not convey our intentions, and that is where the criticism is coming from, obviously we should use every effort to correct that. And if there are some other problems brought out by the hearings, we would be the first ones to like to have the assistance in correcting these immediately.

Mr. Multer. Everybody up to this point seems to be in agreement as to what the policy is and should be. The complaints seem to be directed at the administration or implementation of that policy. Whether it is the fault of the directive or regulation or actual administration, is a matter for later consideration.

Mr. McGuire. I would thoroughly agree that the matter of having policies is one thing, but the purpose of having a policy is to have it work.

Mr. Multer. Thank you very much, Mr. Secretary.

Mr. McGuire. Thank you very much, Mr. Chairman, and other members.

Mr. Multer. Mr. Bannerman, would you like to have somebody read your statement this morning?

**TESTIMONY OF G. C. BANNERMAN, DIRECTOR FOR PROCUREMENT POLICY, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (SUPPLY AND LOGISTICS); ACCOMPANIED BY HOWARD C. H. WILLIAMSON, PROCUREMENT SPECIALIST, OFFICE OF PROCUREMENT POLICY; R. TENNEY JOHNSON, OFFICE OF ASSISTANT GENERAL COUNSEL; AND ANDREW W. DUNCAN, DIRECTOR FOR SMALL BUSINESS POLICY**

Mr. Bannerman. Mr. Chairman, if it is agreeable with you, I would like to ask Mr. Williamson to read this statement.

Mr. Multer. This is the statement of Mr. G. C. Bannerman, Director for Procurement Policy, OASD, Supply and Logistics.

Mr. Williamson. Mr. Chairman and members of the committee, I am happy to have this opportunity to explain our data acquisition policy. I think that this policy, when properly understood and administered, will be found to be fair, proper and the right policy for the Department of Defense.

I will speak to you as plainly and as clearly as I can on a rather technical subject. This statement does not, of course, take into specific account the testimony of the past 2 days.

I wish to state what data is, what we use it for, how we determine our rights to use it for particular purposes, and finally some of the elements of our policy that seem to be misunderstood.

### WHAT DATA IS

First, the "data" which I will talk about consists primarily of manufacturing drawings, maintenance, and operational manuals, which are obtained from sources outside the Government by means of contracts. The definition in the regulation is far more inclusive, but the description I propose is sufficient to explain the policy.

Some of this data or information is classified as proprietary data; everything else is called other data. Proprietary data is any data which discloses trade secrets of manufacture such as methods or processes, treatment and chemical composition of materials, plant layout and tooling. It does not include information in the public domain or that which is disclosed by inspection and analysis of the product itself, sometimes called reverse engineering. Nor does it include any information which has not been protected by the owner against its unrestricted use by others.

There is some difference of opinion between DOD and industry on what the term proprietary data should include. Industry would describe as proprietary data any information it desired to protect rather than limiting the term to trade secrets. We cannot agree with industry that we should by regulation extend protection to information which is in the public domain or which can be readily obtained by analysis and examination of the product, and, hence, which can be readily copied by others.

### WHAT WE USE IT FOR

The uses to which these data are put include: Reprocurement of equipment and parts; maintenance, repair, and overhaul of equipment; and standardization and cataloging.

The amount and quality of data required for these purposes are variable. Very full and complete data are required for reprocurement purposes. Data required for maintenance are generally less complete than for reprocurement. To satisfy standardization and cataloging requirements, the amount and quality of data, compared to requirements for reprocurement, are also less detailed.

### HOW WE DETERMINE OUR RIGHTS

*Research and development contracts*

These differences in our requirements result in our acquisition of data subject to different rights to use. The nature of our purchase and the origin of the data also bear a controlling influence on the right to use the data. The rights which we obtain as to the use of data, depending on these factors, are either limited or unlimited.

There are two principal ways by which we acquire data. One is through Government-financed research and development, and the other through contracts for the purchase of supplies, or by direct purchase. The first is the situation where a contract, financed by the Government, has as one of its principal purposes experimental, developmental, or research work, and calls for models of equipment or practical processes.

In such a case, the contractor is required to furnish, for the price of the work, all data resulting directly from the performance of the contract, whether or not it would otherwise be proprietary data. This includes all data necessary for reproduction or manufacture of the equipment or performance of the process which is developed.

Under research and development prime contracts, manufacturing data are not required for standard commercial components provided the contractor identifies the source and characteristics of such items. This policy recognizes that either the Government or any manufacturer whether or not acting for the Government can buy such commercial components on the open market. Nor is proprietary data required for items, including minor modifications thereof, which were previously developed at private expense and have been offered for sale, provided the contractor identifies these items and the proprietary data pertaining thereto which is necessary to enable the reproduction or manufacture of the item or performance of the processes.

Moreover, a contractor may be compensated separately for use of previously developed proprietary data when the contractor asserts, and it is determined in the negotiation preceding the execution of the contract, that such proprietary data is necessary for manufacture of the product called for in the contract.

The data thus acquired under research and development contracts are subject to unlimited use by the Government for any of its purposes. We regard this as fair treatment and so, for the most part, does industry. There is no practical way to exclude the occasional sweep-in of some of the valuable background technical know-how of the contractor which could not be and was not identified at the negotiation of the contract. Contractors do not like this, but if they did not have such background know-how, it is most unlikely that they would have been awarded the contract for research and development work in the first instance. In any event, it is essential that we obtain full manufacturing information under such contracts.

*Supply contracts*

The rules which pertain to the purchases of supplies, as distinguished from research and development, are different. The term "supplies" embraces a diverse range from common items such as wheelbarrows and automobiles to completely military items. It relates only to contracts which no longer involve any significant amount of research or development, but it can cover supplies which were initially developed at private expense as well as those which were developed at Government expense.

Our regulation states generally that to satisfy the needs of the Government under supply contracts, the acquisition of proprietary data is not normally required. The policy thus assumes that the need for data, including drawings, for operational purposes, such as maintenance, cataloging and standardization, can be met without use of "proprietary data."

Therefore, under such supply contracts, we do not normally acquire proprietary data, but do acquire other data for these uses. Such data are obtained by the Government with the unlimited right to use it. For the most part such other data are not adequate to estab-

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lish a basis for competition. This is also intended; it was not acquired for that purpose.

On the other hand, if the needs of the Government require proprietary data for emergency manufacture, by the Government, as, for instance, for emergency repair at sea, then any data, determined and identified as proprietary, may be obtained subject to limited use for such purposes only.

As further protection of the proprietary data belonging to a contractor, the regulation prohibits procurement personnel from requesting such data in formally advertised procurements. The data has what we call a "fail-save" provision. This automatically deletes any requirement for proprietary data unless such data are suitably identified in the schedule.

Because proprietary data are peculiar to each prospective contractor, it cannot be identified in the schedule of and invitation for bids before the contractor has been selected and, hence, it cannot be obtained through the means of formal advertising.

Moreover when an invitation for bids requires submission of descriptive material for bid evaluation purposes, such material can be submitted in confidence. This does not render the bid nonresponsive. In this situation the confidential submission of descriptive material for bid evaluation purposes applies to all such matter whether it includes proprietary data or not. However, such descriptive material must be used only for bid evaluation purposes. It is not part of the purchase.

The regulation recognizes that a need will sometimes arise for establishing multiple sources of supply for items which were initially developed at private expense. Where this situation arises, and "proprietary data" would be required, preference is expressed, in the regulation, for having the contractor license and, to the extent necessary, provide technical assistance to other sources.

Alternatively the Government can either develop a substitute equipment or, through the use of performance specifications, have such a substitute provided by industry. Any of these alternatives adequately protects privately developed proprietary data and, in the words of the regulation, "fosters private development of items having military usefulness."

If, under all of these circumstances, the Government concludes that it must, nevertheless, acquire privately developed proprietary data for reprocurement of the supplies from others, there must be a separate negotiation for such data and it must be shown as a separate contract item. When "proprietary data" is acquired for such a purpose, it shall be obtained with the unlimited right to use for any governmental purpose.

### SOME ELEMENTS OF POLICY THAT ARE NOT UNDERSTOOD

The reasons I have for believing that this policy may not be fully understood stem from two sources of criticism. On the one hand, we are exposed to the criticism from some segments of industry, despite general industry acceptance of the policy, that we are stealing their know-how and trade secrets. They say we use this technical know-how to establish competition against them.

On the other hand, our policy of honoring private development lays us open to occasional legislative criticism that we are not obtaining the technical data necessary to provide maximum competition.

From what I have said thus far, I hope it is clear that where the Government finances the development, the Government gets all data subject to the exception I have discussed previously with the unlimited right to use. This includes use for competitive reprocurement.

While we agree that sole source procurements should be held to a practicable minimum, we cannot agree that they should never be used. Where a firm has developed an item at its own expense, where the item has significant military value and where there is no other source and no satisfactory substitute, we generally should buy from that firm.

Also, we certainly do not agree with the frequently expressed view that we normally should acquire from the private developer his proprietary data as an incident of purchase of his product for the purpose of establishing competition. This view could be accommodated by our refusing to purhase a product unless it is accompanied by a set of manufacturing drawings, including proprietary data, with unlimited right to use. However, the adoption of such a policy would, in our judgment, be unjustifiable unless just and reasonable compensation were paid.

The Government would probably be unable to provide such compensation due to limited appropriations, and even if there were no limitation on appropriations, such a procedure would be uneconomical when future procurement would not be sufficient to amortize the cost. However, the practical results of such a policy would be that a firm would either refuse to do business with the Government on such terms or might be compelled, under the duress of needing immediate business, to sell its drawings at less than their true value.

This would create industrial ill will and would kill industrial ingenuity and inventiveness, particularly among small or financially weak companies. The larger companies would protect themselves by refusing to do business on this basis. Many a small business has been founded and progressed to become big business on the basis of its closely held ingenuity and inventiveness.

Now, let us take a look at the industry contention that we are stealing their know-how to establish competition against them. Where we finance development, I think the committee will agree that we should not put the contractor in a sole source position by regulation or by contract. We must be free to use the fruits of Government-financed development as we see fit. It is our experience that industry generally agrees with this.

Similarly, where an industry-developed design contains no proprietary information and is, by its nature, susceptible of being freely copied by others, we do not feel that the Government would be justified in agreeing by contract to protect that design.

On the other hand, we have agreed, by regulation, to impose some restraints on Government procurement personnel. They cannot, consistent with the regulation, exact proprietary data as a condition of a sale of supplies. The regulation imposes a corollary burden on the contractor to protect his privately developed proprietary data by withholding it when it has not been purchased. The answer to con-

tractor problems has been stated. It is up to the contractor to understand his contract and the policy and to resist unreasonable demands.

There is one more problem I wish to discuss briefly. Subcontractors sometimes allege that prime contractors are exacting proprietary information from them citing a Government requirement as justification.

The policy statement in ASPR is as follows:

> The acquisition of data from a subcontractor shall be governed by the nature and circumstances of the subcontract, it being the intent of the Department of Defense that in obtaining data originating with subcontractors, the contractor shall, insofar as carrying out his obligations under a prime contract is concerned, be guided by the same policies and procedures as if the subcontractor were contracting directly with the Government and should not request unlimited rights in "proprietary data" where such rights are not required by the Government under the prime contract.

The essence of this is that subcontractor data obligations to the prime are not to be greater than those incurred in dealing directly with the Government. Any transaction involving more turnover of data than the Government requires is a matter of bargain and sale between the prime and subcontractor.

In this bargaining process, there can be no justification for a prime contractor, under the guise of its contractual obligations with the Government, overreaching a subcontractor by requiring for its own private advantage rights to proprietary data not called for by the Government in the prime contract. It is just as unethical for a prime to utilize his powers to grant or withhold a subcontract award to gain private advantage as it would be for the Government to use its economic power as a bludgeon.

### SUMMARY AND CONCLUSION

To summarize and conclude, I consider the regulation on the use and acquisition of data admirably suited to meet the requirements of the Department of Defense. It strikes a proper balance as between those who would have us take all and those who would give us nothing.

The policy on acquisition and use of data as stated in ASPR section IX, part 2, was the first comprehensive regulation in this difficult field. It was coordinated and developed with industry before it was issued and revised. It is relatively new. Because of this, it is under constant review and study. Shortcomings or inequities against either the Government or contractors will be corrected as a need becomes established.

I am happy to have had this opportunity to explain this policy to you, and I am ready to answer any questions you may have.

Mr. MULTER. Thank you, Mr. Bannerman.

It is an excellent statement, and I do not believe anybody would find any fault with the policy or implementation of the policy as set forth in your statement.

But from the complaints we have heard and the testimony we have heard thus far, the question that occurs to me is: Have contracting officers in the field been apprised of these views that are in your statement to the committee?

Mr. BANNERMAN. Mr. Chairman, I think that this committee hearing may be instrumental in making the views in this statement known

to contracting officers, and I would anticipate that we would see to it that it gets rather wide circulation.

The policy itself as contained in ASPR, of course, is known and has been known for a year and a half in its present form to contracting officers.

Mr. MULTER. Well, it seems this is a good rule, but there are so many exceptions and some of the people may have overlooked some of the exceptions.

Mr. BANNERMAN. It is a pretty complicated field and I think I would agree not only from what we heard here, but from what we heard earlier, that there is need for clarification of what our intent was on some of these policies. We are working on that constantly and expect to accomplish something along that line.

Mr. MULTER. I think we could go a long way toward clarification if every contracting officer in the Defense Department would receive a copy of this statement of yours.

Mr. BANNERMAN. Mr. Chairman, we will certainly see to it that it gets very wide circulation among our contracting officers.

Mr. MULTER. You refer to the question here about proprietary data and negotiation where proprietary data obviously belongs to the bidder or the person or firm who is negotiating. Who makes the determination of whether or not his claim is a bona fide claim, whether it is proprietary data or it is data in the public domain?

Mr. BANNERMAN. This question normally arises during the course of a negotiation.

The responsibility for asserting proprietary rights on data would be up to the contractor during the course of the negotiation. The conclusion of that determination would normally be through the negotiation process at that time.

Mr. MULTER. Take the instance that was presented to us here yesterday of this trailer, the man who says the manufacture of that trailer can be accomplished only by using his proprietary data. I am not enough of an engineer or a manufacturer of that kind of equipment to make that determination. Is your contracting officer?

Mr. BANNERMAN. The contracting officer, Mr. Chairman, has a great deal of advice on the contracting team, including engineering advisers, and I think that among them they certainly are competent to form an opinion on behalf of the Government in that respect.

Mr. MULTER. Well, suppose the contracting officer says, "You have nothing new here; you have nothing here on which you can claim proprietary data." What happens?

Mr. BANNERMAN. Well, I do not suppose there is any single answer to that one, Mr. Chairman. I would assume that would be determined by the course of the negotiation. I think it is rather important that that decision be arrived at before the contract is signed so that the parties contract for precisely what they intend to contract for, and at that stage of the game, quite obviously the contractor is capable of, if he chooses to do so, protecting himself.

Mr. MULTER. Let us direct ourselves to another complaint that was made here. A company develops an item that might be this very trailer they were talking about, and let us assume for purposes of our discussion at the moment that he has a unique trailer and it has

been assembled and manufactured only as a result of peculiar trade secrets and proprietary data. But in the making of that trailer he uses a patented valve.

Would you require that he submit to you drawings of that patented valve?

Mr. BANNERMAN. Are you describing a situation, Mr. Chairman, where the trailer is being developed for us at governmental expense?

Mr. MULTER. No. The man walks in and knows you need trailers, you advertise you need trailers, and he says, "Look, I have a trailer that nobody else can make. Here it is. I will sell it to you, but if I do, I want you to know I do not want you to use any of my drawings for calling for bids."

Mr. BANNERMAN. Mr. Chairman, if this is an advertised procurement for trailers, which I think is what you just described, we not only would not require that he give us the proprietary information involved in this valve, we would not ask him for any proprietary information with respect to this procurement. And under our advertised procurement procedures, he has what I would consider an almost foolproof system of avoiding this contractual requirement.

Mr. MULTER. Let us take it the other way. Assume he has a research and development contract to develop this trailer, and during the course of his work in assembly and manufacture, he uses patented articles.

Would the Government take the position that it has acquired the right to use those patented articles in this assembly?

Mr. BANNERMAN. Mr. Chairman, I would like to distinguish between patent rights on the one hand, and rights in data on the other. We do not acquire under a research and development contract any licenses or title with respect to background patents. So that insofar as the patent gives him protection, if that patent was in existence prior to the date of our contract, we would acquire no patent rights.

This does not mean that we might not under some circumstances acquire data with respect to the item. However, I would like to point out that under our research and development contracts, even there, we exclude from the necessity for providing background data, data with respect to any standard commercial item which is going into the development, and also proprietary data with respect to any item whether it is commercial or not, which was developed and sold prior to the date of the contract.

These two exceptions to our general requirement for data under our research and development contracts were put into the regulations in 1958 when they were revised to accommodate the very industry views which you have been hearing here during the course of this hearing.

We feel rather strongly that on behalf of the Government we should go pretty far down the street toward being able to make those things which we pay to have developed. We do feel, however, there is an element of fairness in not demanding a sweep-in of background data if it can clearly be established that such data was developed at private expense prior to the date of our contract.

Mr. MULTER. Well, it breaks down into two simple problems. First, with reference to the patented item, the law presently provides that the person supplying the item to the Government need not obtain a

license, and the owner of the patent has his recourse only through the Court of Claims against the Government.

Now, the problem, the question presents itself, Is that law equitable and fair and should there be any change recommended as to that law?

Mr. BANNERMAN. Mr. Chairman, I would be glad to express a personal opinion on that. I think that that particular conclusion, which has the effect of law at the present time, is not fair. It was our practice over quite a number of years when faced with the situation where it was necessary for us to buy an item which was patented, and where we had determined, first, that the patent was valid and, second, that our requirement necessitated an infringement, it was our practice, as I say, to buy either from the patent holder or one of his licensees.

There was a decision of the General Accounting Office as of last summer, with which I am sure you are familiar, which upset that practice, and made it necessary in an advertised situation for us to award to the low bidder so long as this low bidder would protect the Government against suits, even though we knew that we were thereby causing an infringement of a valid patent. This has the effect of law, so far as we are concerned.

We have accommodated this decision in our regulation. It is currently in there. I, for one, would be happy to see it out. But I do not think that I have that authority or power, and I do not think anybody else in the Department of Defense has that power.

Mr. MULTER. No. But this committee is looking for your recommendation on the subject.

Mr. BANNERMAN. My recommendation—and, incidentally, I have already discussed this with Mr. Williamson here, in looking toward the possibility of having something in our next year's legislative program on that subject. I would hope to be able to recommend to you the legislation that would overcome that situation. I do not think it is fair.

Mr. MULTER. I think we all agree it is fundamental to our system of government that you do not take another man's property without at least his consent, and even in wartime or other times when the public need requires condemnation or taking, we never take it without fair compensation.

Mr. BANNERMAN. Of course, this does not require—excuse me.

Mr. MULTER. Now, this law, one attribute of at least of giving a means of getting fair compensation, even though it is a long, cumbersome method, of presenting a claim, pursuing it through the Court of Claims—I am in agreement with you, my personal opinion is it is wrong; the old policy is right. If a man wanted to supply to the Government a patented article, he should get a license. If he did not get a license, he had no right to sell it to the Government.

Mr. BANNERMAN. There were, of course, even prior to this decision, a number of cases where there were allegations of infringement where on examination of the case we concluded there was no infringement involved and hence we did not honor the patent in those cases.

But that is something which does not change the principle which was one of fairness.

Mr. MULTER. But except for this statute as it now exists under those cases, if you made a mistake and there was an infringement, the owner of the patent still had his right to sue the man who sold the

Government, rather than look solely toward the Court of Claims against the Government?

Mr. BANNERMAN. I do not think that is correct. I think he had to sue the Government even in that case.

Mr. MULTER. Even in those cases?

Mr. BANNERMAN. Yes, sir, Mr. Chairman. This is Mr. Johnson from the Office of General Counsel. I would like to introduce him and ask him to help me answer this.

Mr. MULTER. Any time you want to ask any member of your staff to help you, you may do so.

Mr. JOHNSON. I am Mr. Johnson, of the Office of General Counsel. I think it has been true that since 1918 the patent holder would have a claim only against the Government in the Court of Claims. Prior to that time, he did have a right against the infringing producer.

Mr. MULTER. Well, as a lawyer, what is your best opinion as to what the law should be, what the Congress should do, if anything, with reference to the situation as to patents and the right of the owner of the patent to pursue his claim? Should he have the right to pursue the person who sells the Government and violates his right, and the Government, or either or only one?

Mr. JOHNSON. Mr. Chairman, my view would be to distinguish, first, between the right of injunction under a patent and the right of compensation for the use.

I think it is that the Government cannot be in position of being excluded from the use of any patent, and that is partly the purpose behind the statute in question, which is title 28, United States Code, section 1498.

On the other hand, I do feel that it should be fair to permit the contractor to have, the patent holder, to have an action against the contractor in a district court for compensation for the use of that patent.

Mr. BANNERMAN. I would support that view, by the way, Mr. Chairman.

Mr. MULTER. All right. Now, coming to the other phase of the subject, suppose the item is not patented, the contractor has a research and development contract, and he, in turn, calls on his subcontractor to supply the part of the overall equipment, and that subcontractor has proprietary data.

How do we protect that subcontractor, if we protect him at all?

Mr. BANNERMAN. We protect him in two ways, Mr. Chairman. I have already mentioned the two exceptions to our general rule with respect to getting all data necessary to manufacture. The first of those exceptions, I will repeat, is that we do not require any data of that type with respect to standard commercial components.

I am now assuming a situation where the component is a product of a subcontractor. The subcontractor is not by our contract required to furnish data with respect to such component.

Secondly, if there is a component, the manufacturer of which would require proprietary data and which the subcontractor has previously sold or offered for sale—the proprietary data with respect to such a component is not required under our contract.

Mr. MULTER. I would like to have, Mr. Bannerman, before we close our record here—I might state at this time that we will keep our

record open for 2 weeks from the date of today for the purpose of receiving additional statements from anyone who is interested in the subject and desires to submit such a statement, whether he has testified orally or not, and we will receive such statement for the record.

But I would like very much, the committee would like very much, Mr. Bannerman, if each of the complaints that have been presented to us—and we will make available to you any others that are presented to us between now and the time we close the record—would be analyzed and we could get a report which would direct itself to each of those complaints, so that we could have the full information for the record, with reference to them, because as of this moment, we have statements from witnessse who seem to indicate that the policy has not been implemented in the manner in which you indicate it should be implemented.

I am not concluding now—and I am not saying that this committee has determined—that you did not do it as you were supposed to do it. But I am merely indicating that these complaints have been made and we would like to have the Government's side of the story in the record.

Mr. BANNERMAN. Mr. Chairman, we will be very happy to furnish that information.

My office will provide it after consultation with the military departments involved. We will, of course, have to get the factual statements from them. We will get that as fast as we can possibly do so.

Mr. MULTER. If you need more than 2 weeks, you will let us know, and, of course, we will let you have the additional time.

Mr. BANNERMAN. Thank you very much, Mr. Chairman; it is possible we will.

(This material appears in app. No. 3, p. 174.)

Mr. MULTER. Thank you. Mr. Smith.

Mr. SMITH. Thank you, Mr. Chairman.

First I would like to say I appreciate the cooperation which Secretary McGuire extended to me, and Mr. Bannerman, in the past and I would like to think that the revision of October 1958 came about somewhat due to our correspondence and conversation.

I would like to ask you this, Mr. Bannerman, do you believe that the revisions are entirely satisfactory or that maybe we had better look at them again; to try to sit down and get together and straighten out some of these apparent problems that exist?

Mr. BANNERMAN. Mr. Smith, we are acutely aware of these problems. The testimony of this hearing has certainly pointed them up. We have been aware of a number of them. We have attended industry meetings over the last few months that have pointed out that these problems exist. We have a subcommittee of our ASPR committee—and I think you are familiar with our procedure—working on this. They have been working on this for about 3 months looking for clarifying amendments to the existing statement of policy.

I hope my statement that I presented this morning does not make it appear as though we are standing pat on what we have. We think the general policy we have is sound. We think that it may be perhaps inadequately expressed to assure its full compliance in some cases, and we may think also, and I do think also, that perhaps it has not been fully understood by industry.

I think a good part of this policy could be and should be self-policing, but I do not think there is any questtion no matter what policy we write, industry is going to have to stand up for its own rights under this policy.

Mr. SMITH. Let me refer to some of your testimony, if I may. On page 2, about two-thirds of the way down, you make a statement, and I quote:

Data required for maintenance are generally less complete than for reprocurement.

Mr. BANNERMAN. Yes.

Mr. SMITH. Reprocurement.

Mr. BANNERMAN. Yes.

Mr. SMITH. I think your office suggested sometime ago that manufacturers who were not required to supply complete proprietary data meet the requirement of the services by completing a second set of drawings from which such data has been removed. Is that a reasonably correct statement?

Mr. BANNERMAN. That is a reasonably correct statement, Mr. Smith. I would like to explain it for just a moment, if I may. The suggestion came from industry, not from us. We certainly do not object to it. Our requirements for data can be met in a number of ways.

A second set of drawings might be one way. I suggest that for maintenance you probably do not need manufacturing information at all in most cases. But the suggestion, as I say, for a second set of drawings did not originate with us.

Mr. SMITH. I am referring particularly to Secretary McGuire's letter to Frederick H. Mueller, who was then Assistant Secretary of Commerce and is now Secretary, dated November 19, 1958, where that specific statement was made.

Mr. BANNERMAN. That is correct. He was repeating a statement, or one suggestion, that had been made to him by a certain industry association.

Mr. SMITH. I wondered, Mr. Bannerman, if you are familiar with the general attitude of our military services toward these so-called second sets of drawings. Do you feel they would generally regard them as acceptable and useful?

Mr. BANNERMAN. It depends, Mr. Smith, on what they are proposing to use them for. I do not think there is any question but what the so-called second set of drawings would not be considered acceptable if what they are trying to do is to get a set of drawings suitable for reprocurement. This is deliberate. This is a built-in failure, if you will, with respect to our data policy under supply contracts. We do not want people under supply contracts getting drawings which are suitable for reprocurement, if this requires the revelation without compensation of proprietary data. I think in most cases such drawings would be suitable for any other use.

Mr. SMITH. I particularly asked the question, Mr. Bannerman, because I have in front of me a memorandum of October 24, 1958, apparently to Maj. Gen. W. O. Senter, written on the subject of "Acquisition and Use of Engineering Data," it was addressed to him, and I believe it is over the signature of Maj. Gen. F. J. Dau of the Air Force, who is Director of Supply, and Maj. Gen. W. T. Hudnell of the Air Force, Director of Maintenance Engineering.

Are you familiar with that particular memorandum?

Mr. BANNERMAN. I am not familiar with that memorandum, Mr. Smith.

Mr. SMITH. I wonder if you could give that to Mr. Bannerman.

Of course, I am not trying to trick you and give you some long document and have you read it and decipher it but I think this memorandum indicates that they were quite disturbed about the possibility that maintenance work might have to be undertaken with incomplete drawings, and if you will look on page 2, particularly, I would like to quote the first paragraph, for the record, where it says, the second sentence there, the first full paragraph—I will let you read the whole paragraph, if you wish.

Mr. BANNERMAN. Paragraph 4, you are referring to?

Mr. SMITH. Just above that. The paragraph above that.

Mr. BANNERMAN. This is certainly one point of view, Mr. Smith. I do not necessarily agree with it.

Mr. SMITH. I would like this language in the record which I quote, the second sentence of this paragraph:

> Ordering operational data places the Air Force in the rather ridiculous position of asking a manufacturer to prepare an additional set of drawings which no one wants and which are of no value to anyone.

Do you think, would you agree with me, that this indicates that the Air Force, at least, can get along without this proposed set of second drawings which are referred to above in Mr. McGuire's letter even for maintenance purposes?

Mr. BANNERMAN. Mr. Smith, there is no requirement for a second set of drawings. I think that a second set of drawings is in some industries, and under some circumstances, a way of accommodating this problem.

I think the requirements of the Air Force particularly with respect to our aircraft maintenance are quite different from some other industry. I think that the problem of data has to be looked at on an industry-by-industry basis.

Let us remember that practically all military aircraft are, in fact, designed and developed at Government expense; and being designed and developed at Government expense, we are entitled to, through that process, and up until the time the development stops, full manufacturing detail with respect to such aircraft under our policy.

So this question of getting a second set of drawings, which would be useful only when we are trying to exclude proprietary data, would not normally arise in the aircraft industry. It might arise with respect to certain components that are used by the Air Force, such things as handling equipment or accessories to aircraft, but the aircraft themselves are for the most part developed at our expense.

Mr. SMITH. My point, Mr. Bannerman, is that I am a little bit concerned as to the policy level of the Department of Defense, whether or not they are fully aware of what the actual practices and action may be down at the procurement level.

In other words, we may think that a policy is going to be carried out one way when it, in fact, may be carried out in another way, or not at all.

Mr. BANNERMAN. I think the answer to your question is, Mr. Smith, that we are becoming increasingly aware of how this is being carried out. There are no mysteries in this field. We have studied a number of contracts and we will continue to do so.

Our group who are working on sharpening up this policy and improving the statement of policy is an interdepartmental group including Air Force representation.

I would like to say that it may well be that where all we want data for is for maintenance purposes, as distinguished from reprocurement or manufacturing purposes, we may find out that we have got to provide some way of getting that data with the limited right to use it. I am reluctant to do that for a variety of reasons, and one is that this places a limited right in the Government by contract with respect to a lot of data which, for the most part is not proprietary at all and I do not know that the Government ought to restrict itself in that respect.

But nevertheless, it is certainly one possibility and one that will be thoroughly considered.

Mr. SMITH. Let us go to the bottom of page 3, if I may, of your statement, where you are talking about the data you get from research and development contracts, and this starts out with the last six words, on page 3, and I quote:

> There is no practical way to exclude the occasional sweep in of some of the valuable background technical know-how of the contractor which could not be and was not identified at the negotiation of the contract.

Now, what I want to know is what about the data of the suppliers to these R. & D. contractors, the small business companies, let us say, as an example? Why do we not get R. & D. subcontractors who furnish components that they design and manufacture at their own expense?

In other words, do you feel their data should be swept in, also?

Mr. BANNERMAN. Mr. Smith, I would have to answer that one in the same way I earlier answered a question of the chairman. We have obviously recognized the basic unfairness which a policy of sweeping in such data would entail. To overcome that we have deliberately excluded from the requirement for full manufacturing data under research and development contracts, data with respect to standard commercial components. That would be vendor items of the type you described.

Mr. SMITH. Yes.

Mr. BANNERMAN. If it is a standard commercial component, we do not ask for data for it. All we ask for is an identification so that we may thereafter buy it.

Secondly, if the component is privately developed, and one which has been sold prior to the date of our contract, we exclude any requirement for proprietary data with respect to such a component.

Now, quite frankly, there are others who would have us go farther with these exclusions. I do not know how far you can go. We, after all, are representing the Government and we have to protect the Government's interest in these things.

We felt that one way of assuring ourselves that the data which are sought to be excluded were, in fact, developed at private expense, was to insist upon some evidence of a sale prior to the date of our con-

tract. If some better way of accommodating this same purpose can be achieved, why, we certainly would be openminded to seek to find it.

Mr. SMITH. I am familiar with the regulations and what the policy says, but what I am concerned about is the fact we have had a number of witnesses here in the past couple of days that indicate to us that that is not actually the way it is done. They tell us that a prime contractor, where he has an unlimited rights and data clause in his prime contract, requires every one of his suppliers to agree to this clause, and he also requires his suppliers to furnish a complete set of data.

In fact, as I remember, Mr. Scott said that these were the instructions his firm had received. Mr. Scott, as you know, is of the Garrett Corp. And then they were specifically ordered by their customers in the military to get all data from the supplier.

So if you think it is wrong for the Government to demand all the data, proprietary or otherwise, when it applies to a small manufacturer, then why is it right for the Government to insist on the same data when it buys the supplies through a prime contract?

Mr. BANNERMAN. Mr. Smith, we can write the regulations and we can establish contract clauses, which we have done, to accommodate the situation that we are describing here.

The prime contractors' contract does not require him to obtain data of the type which I described under the exception from his vendors and suppliers.

The regulation is clear in this. The prime contract clause is clear on this. I do not know how we can go out—maybe there is a way we can do it—and participate in the negotiations between primes and subs and insist they do not do more than we ask them to do. I think actually the subcontractors, including some of the people who have testified at this hearing, have on themselves and this committee the duty of being a little more insistent than they apparently have been on sticking up for their own rights. This is just good business.

Mr. SMITH. Well, you take a small businessman. Would you agree with me that for the most part his operations must be in the field of small contracts?

I think that is pretty much an agreed statement. As a matter of fact, I think Secretary McGuire has made that statement in the past. In fact, I believe the Secretary stated that:

> The weapons we are buying are so complex and so costly, you cannot hope to buy so much direct from the small business as you used to and these companies would have to look to subcontracts as the means of keeping doing defense work.

Would you agree with me on that; is that correct?

Mr. BANNERMAN. I think I would agree with you, Mr. Smith, on that, and I would like to point out one generality that we have gone very far indeed, both by regulation and practice, to try to make it possible for a small business subcontractor to get a competitive crack at this vast amount of subcontracting business.

Mr. SMITH. If that is true, then are you saying that when these companies have to get their business as subcontractors, they are not going to be able to hang onto their proprietary data?

Mr. BANNERMAN. No, sir; I am not saying that. I do not believe that is a fact. If prime contractors are demanding from their sub-

contractors more data than the prime contract requires that they pass on to us, I can assure you that we, and I am sure all contracting agencies of the Department of Defense, will be glad to have an open door to try to remedy these cases as they arise.

But I still say that the major remedy is in having the subcontractors stick up for their own rights, first understand them, which I think many of them do not.

Mr. SMITH. Yes. But from a practical standpoint, the subcontractor, the small businessman, does not have any privity of contract with the Government on the negotiations. He can only negotiate with the prime and if the prime demands it and he does not give it to him, then he just does not get the business.

Mr. BANNERMAN. I would like to make two comments with respect to that, if I may, Mr. Smith.

Mr. SMITH. Yes.

Mr. BANNERMAN. I think what you say certainly has a degree of accuracy about it. This is true in all business, whether or not it is Government business. The subcontractors have to stand up for their own rights.

But, secondly, we do have an interest in subcontracts, because if we find that prime contractors are requesting from their subcontractors more data or more rights in data than we require or than we ask the prime contractor to get, it may well be in a given case that the Government is in fact paying for this as part of the cost of the subcontract, in which case we are very interested because we do not want to pay for it. We are not asking for it and we do not want to pay for it.

Mr. SMITH. If you deal directly with a small contractor or anybody else, you would make the statement and you do attempt to honor the proprietary rights of whomever you deal with?

Mr. BANNERMAN. Not only that, but we try to see that our prime contractors do it when we are dealing indirectly.

Mr. SMITH. Well, you certainly give the same honor to the subcontractor in some way if we can as you would do if you deal directly with them?

Mr. BANNERMAN. Mr. Smith, if you can assist us in finding a foolproof way to assure that the contractual relationship between two parties, neither one of which is the Government, is conducted in accordance with the Government's own policy, we certainly would welcome it. We are looking for such a system. In part, we have found it, but we do not claim that we have licked it entirely.

Mr. SMITH. Well, I hope this committee can help a little bit on these problems.

Mr. BANNERMAN. I hope you can, too; I am sincere in it.

Mr. SMITH. When you get down to it, it just seems to be that the military services are requiring the primes to get more information than you actually would require them to get from the subcontractor if you dealt directly with them, and that is an unfair situation.

Mr. BANNERMAN. Mr. Smith, your comment makes me think I have not made myself understood, and I would like to repeat. Our military people are not requiring our primes to get more information from the subs than they would get normally from primes. If they are using—and I must assume that they are using—the standard approved clauses

in the contract, those clauses are sufficient to assure that this does not happen.

Now, quite apart from what clause we put in the prime contract, and quite apart from what demand we place on a prime contractor, we do not have any built-in mechanism for assuring that the prime contractor does not ask for more than we ask for. Now that, I think, is where the problem may exist, and it is that which we would seek your help in overcoming.

Mr. SMITH. I am glad to have you say that because I think when you have a chance to read the testimony of some of these witnesses you will agree that we have a problem there where the prime does ask for probably more than you actually think he needs to ask for from the subcontractor.

Mr. BANNERMAN. I may say, Mr. Smith, we have seen evidence of this also and we certainly will seek to correct it wherever we find it.

Mr. SMITH. If you will refer to page 5 of your statement, Mr. Bannerman, earlier in your testimony before page 5 you said that you do not ordinarily request proprietary data under a supply contract, or I believe you said normally, I think you said, "We do not normally require proprietary data," and on page 5 you say, "It cannot be obtained through the means of formal advertising."

Mr. Hahn was here yesterday and he read off a list of invitations to bid which he had received from the Air Force which included in the schedule a set of manufacturing drawings and also required him to accept a data clause giving the Air Force the full rights in any data he submitted. I know you were not here when he testified, and you may not be familiar with it. What I am wondering about is if it comes as any surprise to you to learn that advertised procurements do, in fact, ask for manufacturing drawings as well as full rights in the data they contain?

Mr. BANNERMAN. Mr. Smith, I would like to answer that one by pointing out to you and to Mr. Hahn, that the contract also contains a clause which we call our fail-safe clause, which I think is the clause labeled H in our data provisions which says that notwithstanding any provision in the specifications of this contract calling for data, no proprietary data need be furnished unless such data is specifically identified in the schedule, and called for.

Now, I submit to you the proprietary data cannot be specifically identified in the schedule of an advertised contract. The schedule of an advertised contract, as I am sure you know, is the invitation for bids. We put out an invitation for bid, and we get bids back, we sign it and that is a contract.

Now, obviously, if you are sending an invitation for bids out to 8 or 10 people or more, each one would have different proprietary information. You can't specify in the schedule what is proprietary data. Hence, this so-called fail-safe clause completely protects Mr. Hahn under the circumstances I am talking about. If manufacturing drawings are called for, under that contract, he should submit manufacturing drawings excluding proprietary data. He is entitled by contract, by the contract he would have signed, to exclude it. There may be some angry contracting officers, but nevertheless that is what they have contracted for. This is what I meant when I said to the chairman earlier we have done our best to make this thing foolproof.

Mr. SMITH. The problem is when he eventually was advised, he then asked for his proprietary rights and they said you did not ask for them soon enough. In the next instance when he asked for them they said the bid was not responsive. He did not have a chance to get the business. I suppose when we get back to the second set of drawings and the only thing he can do is to try to protect himself.

Mr. BANNERMAN. Let me say, first, that I think these cases—I have heard of them before—I think these cases may have arisen before the fall of 1958 when this fail-safe clause went in, and hence the first case that you mentioned conceivably could have happened exactly the way you talked about it.

The second case, as you know, in an advertised procurement, anyone who takes exception to any of the provisions of the contract has submitted a nonresponsive bid and it must be rejected.

What I am suggesting is that with the fail-safe clause in there now, he does not need to take exception to it in order to protect himself. He can submit a completely responsive bid.

Mr. SMITH. Also, on page 5 you point out that an appropriate way to establish multiple sources of supply other than insisting on proprietary data is to have the original design contract licensed, and to the extent necessary, provide technical assistance to other sources.

Another of our witnesses here yesterday, Mr. Marcheschi, said that when his company was met with a demand for proprietary data, it offered to license other companies and to even let the military have a say in who was going to be licensed. Instead, the military service—I believe it was the Air Force—simply took his data and wrote it up into a design specification.

I am sure we are going to ask the Air Force about this situation when they appear here, but what I wanted to ask you is this: Do you know of any case where a small business that wanted to keep its proprietary position was permitted to license somebody else instead of being forced to give up the data? You indicate that is the policy. Do you know of any specific cases where that policy has been followed?

Mr. BANNERMAN. Mr. Smith, I can't answer your question. I do not personally know of it. I am sure I can find some and would attempt to do so.

Mr. SMITH. Now, on page 6——

Mr. BANNERMAN. I might add, in that case that you mentioned, if he simply made data available to the Government, not in connection with any contract for the sale of materials or research and development, he had it completely within his power to protect the use of that data had he chosen to do so. There are provisions which he can or conditions he can place on the release of any data at any time. This is well known, I think, to most industry.

Mr. SMITH. On page 6, about line 6 or so, you state "general industry acceptance" of your policy. But that "some segments of industry" are making protest. I wonder if you would care to describe what you mean by "general acceptance." Do you mean that industry feels it is stuck with it and cannot do anything else, or do you mean that most of the industry really thinks your policy provides the incentive for private development, or what you might have in mind?

Mr. BANNERMAN. Yes, Mr. Smith.

Before we issue segments of the "Armed Services Procurement Regulations" that have a significant impact on industry, and clearly this one did, it is our normal practice to coordinate the work that we have prepared with industry through usually a variety of industry associations. For instance, this policy was coordinated through not only the Strategic Industries Association, who have been here, but also the National Security Industrial Association, the automobile manufacturers, the electronics industry, machinery and allied products industry, and a number of others. Their comments were all received and all considered.

To the extent that we consider them sound and are able to accommodate them and still protect the best interests of the Government, we certainly try to do so. This is a standard practice with us in the development of regulations that affect industry.

The data section of ASPR was thoroughly coordinated over a period of years before it was issued, and even after it was issued in 1957 we found changes that we thought needed to be made to protect some of the interests that have been discussed in these hearings, and I am sure you know, as we discussed the changes made in 1958, to sharpen this up. We are willing and ready to make additional revisions, but we have not had general criticism of this policy in the intervening year and a half. We have heard a number of people from industry, and from some of these industry associations, express general satisfaction with the policy.

I feel that is probably the present overall position of industry, although I think throughout there are individuals who have individual suggestions as to how it should be changed. We welcome those suggestions.

Mr. SMITH. Of course, you have to look where their bread is buttered on, so lots of times they are a little reticent to make requests to change.

Another thing, from your statement it seems you rather indicated you might not honor as proprietary anything that your people claim they could have discovered if they went far enough in their inspection and analysis of the product. Now, that means, I suppose, that if you can tell the shape of anything and use chemical analysis to determine the materials, you do not say actually the people have to make this inspection and analysis, you say it is not proprietary if it is the kind of information you could get in case you took the trouble to do it.

Just one other question: What kind of inventiveness and new developments can your policy possibly foster? Or maybe I should put it this way: Can you name me three or four instances in the design or performance of a weapon or its components that can be attributed to the way you have quoted "our proprietary policy"?

Mr. BANNERMAN. Mr. Smith, I cannot answer that here; I did not come prepared to answer it. I am sure that instances wherein private developments have been incorporated in military weapons, and the same source for such private developments has been used throughout the life of the military weapon are legion, and I am sure I can find many instances.

Mr. SMITH. I repeat, Mr. Bannerman, that I am not attempting to pick a fight, I do not think we should. But I want to get some of the things in the record which you indicated and industry has indicated. I am certain that this committee can sit down and clear up some of these things.

Thank you very much.

Mr. MULTER. Mr. Robison.

Mr. ROBISON. Mr. Chairman and Mr. Bannerman, it may be, as you say, that industry in general is satisfied or at least temporarily content with the regulations we have been discussing, but we surely have heard in the last couple of days some people who have been most unhappey with them.

Now, do you think it would help in those instances where there has been difficulty if there were no definition of proprietary data at all, and the Government would then purchase all data, the price to be paid for that being dependent on the use the Government was going to make of it?

Mr. BANNERMAN. Mr. Robison, this was one of many suggestions that were considered during the course of the development of this regulation. We concluded, on behalf of the Government, that we simply could not and should not in the Government's interest, agree by contract to protect that information, which is totally unprotectable except for the contract.

In other words, if information is or readily can be in the public domain, we do not feel that we would be justified on behalf of the Government in agreeing to any limitation on our use of that data if it comes into our hand. Hence, we felt there was no way out of this dilemma but to create this definition of "proprietary data."

Now, there was also disagreement as to what the definition should contain. That disagreement, to a degree, still exists. We are, I personally, certainly, am completely openminded on this subject. I know what we had in mind when we drafted this definition. From some of the testimony I have heard at these hearings, I would gather that perhaps the definition has been read with a tougher point of view than we had originally intended in some instances. If this can be straightened out, why, we will be glad to attempt to do so.

Mr. ROBISON. Thank you.

Do you think it might help also to establish a review board, perhaps charging it with the responsibility for reviewing the determination of need for such data before a demand was made for it?

Mr. BANNERMAN. Administratively, I would oppose that, Mr. Robison. We make a tremendous number of contracts in the course of a year. We engage in something over 6 million purchase transactions involving something over 250,000 formal contracts. A very high percentage of these formal contracts have requirement for data of one kind or another. These contracts are made all over the world, by a great many different purchasing offices. The requirements originate all over the world. There are probably several hundred offices all over this country engaged in making contracts that may have data requirements. The data requirements of one specific technology and one specific office may be quite different from those of a different technology in a different office. I do not know what useful

purpose any review board would serve, and I think it might simply be a tremendous delay factor in our procurement process.

Mr. ROBISON. Thank you for that answer.

Would this then be something that might be of help, to separate the acquisition of data from the procurement of the product itself so that such data would be purchased or obtained independently as a separate and distinct item complete unto itself? More administrative problems?

Mr. BANNERMAN. No. With respect to proprietary data under a supply contract, we have accommodated the point of view that your question indicates to a degree, by saying that it shall be a separate contract item separately negotiated for, when, as, and if we need it.

Mr. ROBISON. Let me ask you at that point, if I might interrupt, Do you think the present regulations are explicit enough to require the Government to pay for such truly proprietary data?

Mr. BANNERMAN. I frankly think there is some question about that and that is one of the points we are examining our new review of this policy. I think we should make it very clear, certainly to all Government personnel and through our regulations to industry, that where we are buying proprietary data under a supply contract, we intend to recognize that we are buying something more than paper. We are buying rights, and as such, we should pay for it.

Mr. ROBISON. Well, thank you for that answer, too.

Then would you go back to where I interrupted you in respect to your comments on purchasing proprietary data.

Mr. BANNERMAN. Well, I was going to say that under research and development contracts, we expect data as part of the end product. As a matter of fact, it is one of the main things we are buying. I certainly would not agree we should ever separate that from the basic contract.

Mr. ROBISON. I would agree with you on that.

Mr. BANNERMAN. Under supply contracts, where we want, for instance, maintenance information, I see no reason why we should have to buy that separately.

Mr. ROBISON. I do not think I do, either.

Mr. BANNERMAN. From the main contract. Under a supply contract where we specifically want proprietary data, we agree it should be separated out, looked at, priced separately, and regulations so provide.

Mr. ROBISON. Thank you.

Mr. MULTER. Mr. Maness.

Mr. MANESS. Mr. Bannerman, would you submit to the committee for its files for study by the staff, samples of specifications and drawings in which, one, proprietary rights and data were protected, two, some proprietary rights were protected and some were disclaimed, three, where proprietary rights were totally disclamed?

Mr. BANNERMAN. This request, of course, was made on us a week or so ago, Mr. Maness. We have gotten together quickly from Washington sources, because we did not really have time to go out of town, a half-dozen or more contracts where I think these things are spelled out. I would appreciate the opportunity to discuss these with you individually, because the contracts are pretty complicated and they are not necessarily self-explanatory.

(This material is in the committee's files.)

Mr. MULTER. Suppose we leave it that one of your representatives will discuss the matter with Mr. Maness and Mr. Dalmas, and then agree on appropriate summaries to be added to our record.

Mr. BANNERMAN. I would like to designate Mr. Williamson to do it, if I may.

Mr. MULTER. Mr. Dalmas.

Mr. DALMAS. Mr. Chairman, I would not delay the hearing any, but I have several questions. I would like the Chair's permission, if I may, to put these in writing and submit them to the Department for answers.

Mr. MULTER. Yes, that may be done.

(The questions and answers referred to are as follows:)

APRIL 12, 1960.

Mr. G. C. BANNERMAN,
*Director for Procurement Policy, Office, Assistant Secretary of Defense (Supply and Logistics), Department of Defense, Washington, D.C.*

DEAR MR. BANNERMAN: You will recall that at the hearings on proprietary rights and data held March 29, 30, and 31, 1960, on pages 295 and 296 of the transcript, Mr. Parke Dalmas was given permission to submit specific questions to the Department of Defense; these questions and the answers thereto to be made part of the record.

The questions submitted by Mr. Dalmas follow:

1. Does not 9-203.3(i) negate 9-203.2(h) of ASPR 9.2?

2. Should design data be included within the scope of proprietary data and, if so, why?

3. From your experience, can you cite instances of Government requests for proprietary data or data which is considered proprietary where there appeared to be no clear demonstration of the Government's need for such information?

4. Granting that data necessary for maintenance, operation, and training should be provided by the supplier as a part of the purchase price, should not such data be specifically limited quantitatively and qualitatively for the purpose for which it is obtained? In other words, would it not be improper for a Government procurement officer under the guise of securing operational data to actually demand sufficient data to duplicate the purchase item by other manufacturers?

5. When it is decided that there should be alternate sources of supply for a proprietary item, how in your opinion should these sources be developed?

6. Should not the Government encourage the licensing of proprietary items to responsible concerns by the developer of a proprietary item rather than having the Government demand proprietary data in order to avoid "sole source" procurement?

7. Granting the generally accepted trade thesis that three or more bidders make competition, how many concerns should an owner of a proprietary item license in order to secure a competitive situation satisfactory to the Government?

8. What is the Department's experience respecting the willingness of contracting officers to pay for data which such contracting officers concede is proprietary in nature?

9. What is the Department's experience respecting the willingness of contracting officers to pay for data which the manufacturer claims is proprietary, but which the contracting officer contends is not proprietary?

10. Granting that the Government is willing to pay for services rendered, is it possible for a manufacturer claiming proprietary rights and data for a given item or service to negotiate with contracting officers on an equal basis and arrive at a fair price to be paid for data?

11. What procedures do you think the Government should require contracting officers to follow in order to assure the owners of proprietary data a fair and equitable price when such data is furnished to the Government?

These answers will, of course, be in addition to the other material to be submitted by you on the problem.

Sincerely yours,

ABRAHAM J. MULTER,
*Chairman, Subcommittee No. 2.*

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(SUPPLY AND LOGISTICS),
*Washington, D.C., May 9, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Subcommittee No. 2,*
*Select Committee on Small Business,*
*House of Representatives*

DEAR MR. CHAIRMAN: We have previously acknowledged your letter of April 12, 1960, forwarding 11 questions put by Mr. Parke Dalmas, which we understand, together with the answers thereto, are to be made a part of the record. The questions and answers thereto follow:

*Question No. 1.*—"Does not 9-203.3(i) negate 9-203.2(h) of ASPR 9.2?"

*Answer.*—ASPR was revised on March 15, 1960, and the letter designations of the clauses in 9-203.2 ("fail safe") and 9-203.3 (limited rights) are now designated (i) and (j), respectively, being formerly designated (h) and (i).

Before answering the above question it is appropriate to briefly describe the ASPR data clause provisions involved. The basic-data clause, ASPR 9-203.1, is used in all contracts. Among other things, it defines data, grants rights to Government to use the data, and authorizes removal of unauthorized restrictive legends on data. The fail-safe clause is required in all supply contracts. It excuses furnishing of proprietary data, as defined therein, which might be required under tables and specifications incorporated in the contract by reference, unless suitably identified in the contract schedule as being required. The limited-rights clause is used only if the Government is acquiring proprietary data for a limited purpose and the restrictive provisions relate only to that proprietary data identified in the contract schedule.

The limited-rights provision does not negate the fail-safe provision. As stated in ASPR 9-202.2(b)(1), where it is desired to obtain proprietary data subject to limited rights, the proper contract data clauses in the contract would consist of the basic-data clause, 9-203.1, the so-called fail-safe clause, 9-203.2, and the limited-rights clause, 9-203.3. The limited-rights provisions would attach to and protect that proprietary data which had been suitably identified and expressed in the contract schedule. Therefore, that proprietary data would not be within the exclusionary scope of the fail-safe provision which would be operative only with respect to other data as to which unlimited rights in data are acquired.

In the normal and usual supply situation where unlimited rights in data are acquired, the contract data clause would be the basic-data clause and the fail-safe provision. Hence, proprietary data would be specifically excluded by the fail-safe provision unless suitably identified as being required, and listed as a separate contract item after negotiation.

*Question No. 2.*—"Should design data be included within the scope of proprietary data and, if so, why?"

*Answer.*—This question requires some definition before an answer is given. Design data or drawings are sufficient to permit manufacture of a given product and may thus include manufacturing secrets. If so, such secrets, if identified, are within the scope of the definition of proprietary data.

On the other hand, design data (manufacturing drawings), to the extent proprietary data is not involved, is considered to be "other data" in ASPR 9-201(c)(ii), and thus not subject to the protection accorded proprietary data. Since we do not presently perceive any reason to change this, the answer to the question is "No." The discussion as to point No. (2) in my letter dated April 22, 1960, to you is highly relevant to the question.

*Question No. 3.*—"From your experience, can you cite instances of Government requests for proprietary data or data which is considered proprietary where there appeared to be no clear demonstration of the Government's need for such information?"

*Answer.*—I do not recall any specific instance I can cite of Government requests for proprietary data where there appeared to be no clear demonstration of the need of the Government for such information. Nevertheless, it appears probable, from the testimony of the witnesses, that such has been the case; however, there has been no countertestimony showing of the Government's need for such information. Procuring offices normally buy to satisfy requirements stated in the purchase request. Other offices determine requirements to satisfy needs whether it be equipment, services or data. I stated in my letter of April 22, 1960, that I did not believe that either industry or the Government had the

facts on which to appraise the validity of the Government demand for manufacturing drawings and that a survey was being undertaken to ascertain the facts of the matter. When this is completed we will be in a better position to answer this question.

*Question No. 4.*—"Granting that data necessary for maintenance, operation, and training should be provided by the supplier as a part of the purchase price, should not such data be specifically limited quantitatively and qualitatively for the purpose for which it is obtained? In other words, would it not be improper for a Government procurement officer under the guise of securing operational data to actually demand sufficient data to duplicate the purchase item by other manufacturers?"

*Answer.*—Agreed, data required for maintenance, operation, and training should be limited quantitatively and qualitatively for the purpose for which it is obtained. Maintenance, however, probably requires more detailed data than that required for operation and training, but less than that which is necessary for manufacture. These requirements and purposes, if stated, tend to establish quantitative and qualitative limitations on the data acquired. With respect to the question relating to misrepresentation of the Government's purpose in securing operational data, such an action by a Government officer would be considered improper as any other misrepresentation. However, no one is in a better position than the contractor to know what he is transferring to the Government and if it is with unlimited rights to use, he must be prepared for unlimited use. If it is with limited rights, the Government should protect it. In either event there is no misrepresentation.

*Question No. 5.*—"When it is decided that there should be alternate sources of supply for a proprietary item, how in your opinion should these sources be developed?"

*Answer.*—The regulation in paragraph 9–202.3 states that the preferred way to develop alternate sources of supply for a privately developed item is to have the first source or the development source license other sources to build the product. It is often impossible for the Government to purchase data with sufficient information to establish a second source without the assistance of the first source. Alternatively new sources can be created by providing a statement of Government requirements in terms of performance specifications and throwing the matter open to competition. This will produce, through duplication of engineering effort, an equipment which will perform the functional requirement. This is obviously less desirable because of the wasted effort when there is a satisfactory product available in quantity.

*Question No. 6.*—"Should not the Government encourage the licensing of proprietary items to responsible concerns by the developer of a proprietary item rather than having the Government demand proprietary data in order to avoid sole source procurement?"

*Answer.*—We recognize no necessity to establish alternate sources solely to avoid sole source procurement of an item that is proprietary in fact. Alternate sources are considered only if the existing source cannot meet our requirements or if the price demanded is excessive. Alternate products are always considered. Where alternate sources are required, pursuant to this policy, we do encourage licensing. (See the answer to question No. 5, above.)

*Question No. 7.*—"Granting the generally accepted trade thesis that three or more bidders make competition, how many concerns should an owner of a proprietary item license in order to secure a competitive situation satisfactory to the Government?"

*Answer.*—As stated in ASPR 9–202.3, the Government's interest in establishing multiple sources arises when it is necessary to (i) insure fulfillment of current and mobilization requirements, or (ii) to permit competition for defense procurement to avoid unreasonable prices. Obviously, where increased capacity is desired, the aim is not to establish a competitive situation. Assuming that a source is willing to license other sources to compete against him, the number of sources need be no more than is necessary to accomplish reasonable pricing. There really is no prescribed method for meeting the second source problem. (See answer to question No. 5.)

*Question No. 8.*—"What is the Department's experience respecting the willingness of contracting officers to pay for data which such contracting officers concede is proprietary in nature?"

*Answer.*—If there is a need and a requirement a contracting officer should be and is willing to negotiate and pay for proprietary data as in the case of any other need and requirement of the Government. (See ASPR 9-202(b)(1).) However, data like any other product can be priced above what a contracting officer may be willing or able to pay. The files of the DOD activities are not established in such a way that the number of instances in which this has been done would be revealed.

*Question No. 9.*—"What is the Department's experience respecting the willingness of contracting officers to pay for data which the manufacturer claims is proprietary, but which the contracting officer contends is not proprietary?"

*Answer.*—Contracting officers would not normally expect to pay substantial sums for data which can readily be ascertained from the product itself. Obviously, the Government can not acquire the data if the contractor refuses to release it because of dissatisfaction with the price. However, if the contracting officer does not consider the data to be proprietary, he would, if he had a requirement for such data, make every effort to obtain it for the Government at the lowest possible price. We have no statistical information available on our experience in this field.

*Question No. 10.*—"Granting that the Government is willing to pay for services rendered, is it possible for a manufacturer claiming proprietary rights and data for a given item or service to negotiate with contracting officers on an equal basis and arrive at a fair price to be paid for data?"

*Answer.*—Yes, any manufacturer claiming proprietary rights in data can and does negotiate with a contracting officer on an equal basis to arrive at a mutually agreeable price. The contractor controls the data and the Government has no way to get it except on terms which are satisfactory to him.

*Question No. 11.*—"What procedures to you think the Government should require contracting officers to follow in order to assure the owners of proprietary data a fair and equitable price when such data is furnished to the Government?"

*Answer.*—It is not considered feasible to prescribe specific procedures for pricing of proprietary data. This is no different than any other negotiation with a sole source. The purpose is to arrive at a mutually satisfactory price for the article. It is assumed that if a bargain is struck, the resulting price is fair and equitable to both parties. We recognize that a disparate bargaining position of the parties will sometimes exist in either direction.

I trust that these answers provide the information you wish. However, if anything in addition is desired, please do not hesitate to call on us.

Sincerely yours,

G. C. BANNERMAN,
*Director for Procurement Policy.*

Mr. MULTER. Thank you, Mr. Bannerman, and gentlemen; you are excused.

Mr. BANNERMAN. Thank you, Mr. Chairman. We appreciate being able to state this problem.

Mr. MULTER. Mr. McCallum.

This is Mr. Philip McCallum, Administrator of the Small Business Administration.

Before you proceed, this is the first time since his accession to the Office of Administrator for him to appear before the subcommittee, if not the Small Business Committee of the House, and I congratulate you upon your promotion and wish you well in this Office.

Mr. McCallum, will you identify your associates and then proceed as you please, either by reading your statement or making it a part of the record and summarizing it. The choice is yours.

## TESTIMONY OF PHILIP McCALLUM, ADMINISTRATOR, SMALL BUSINESS ADMINISTRATION; ACCOMPANIED BY DONALD A. HIPKINS, DEPUTY ADMINISTRATOR, AND ROSS D. DAVIS, ASSISTANT GENERAL COUNSEL

Mr. McCALLUM. Thank you very much, Mr. Chairman, and members of the committee, for your very generous statement, too, about my new position as Administrator of SBA.

Appearing here with me today are Mr. Donald A. Hipkins, who is the Deputy Administrator in charge of our procurement and technical assistance programs, and Mr. Ross Davis, Assistant General Counsel of SBA.

Mr. Chairman, I am appearing here today at the request of the subcommittee to comment on the policies and practices of the Department of Defense with respect to proprietary rights and data.

Let me make it clear at the beginning that while we at the Small Business Administration have been generally aware of some of the difficulties which have developed in the application of policies affecting the use of proprietary rights and data, we have received few, if any, direct complaints on this topic from small contractors. I do not mean to suggest, however, that problems do not exist or that they are not important.

Any review of the effect of the Department of Defense policies governing proprietary rights and data immediately discloses that the small business community is not of a single mind in these matters. The opinion of an individual concern is tempered, obviously, by its interest in and relation to defense procurement. A prime contractor may have one view; a subcontractor, another. A practice which benefits one firm may be an anathema to another.

A firm which looks primarily or exclusively to defense production for its business may encounter difficulties under the military programs which are different from those of a concern which is engaged primarily in nondefense activities and which accepts defense contracts if, as, and when it is convenient and to its advantage to perform them.

There are many small concerns whose principal source of income is derived from the sale of proprietary items. To them any regulation which makes proprietary data available to competitors is undesirable.

On the other hand, there are many small concerns which do not sell proprietary items. They produce to their customers specifications. These concerns firmly believe that the Government should not buy from a "sole source," but should establish specifications for the products it needs and obtain these items through competitive procurement.

These firms, too, are extremely important to the Nation's economic strength and to its defense program. If their opportunity to participate in defense procurement is seriously curtailed, the present decline in the participation by small business in the defense program will be accelerated. These concerns quite logically favor regulations enabling the Government to obtain complete manufacturing data thereby making it possible to increase the number of items competitively purchased.

It is obvious that comments on present proprietary policies or recommendations for change must be viewed in the light of the experience and interests of the firm making this criticism or recommendation; and we can appreciate their position. However, consideration must be given to the needs of every type of defense contractor.

We must also recognize that the military agencies have a variety of needs which must be served by its policies covering the use of proprietary rights and data. Clearly, inventiveness must be fostered but so, too, must competition. Dependency on sole sources must be limited and the defense effort must be established on a broad mobilization base.

In the light of these considerations it would seem clear that the interpretation and implementation of any proprietary data policy must entail some degree of compromise.

On one thing there should be no disagreement. The Government should seek to acquire at a fair and reasonable price and industry should furnish at a fair and reasonable price whatever the Government actually needs. As a corollary, the Government should not seek to acquire and industry should not be expected to furnish anything which the Government does not need. Nor should the Government seek to pay or industry be expected to accept less than a fair and reasonable price for what it furnishes to the Government.

The Department of Defense policies governing the acquisition and use of proprietary data are, of course, found in the Armed Services Procurement Regulations. It appears to me that, in the main, these policies are sound and fair. They state that inventiveness is to be encouraged.

To achieve this end, proprietary data resulting from private development will be honored and demands for such data will be limited to that which is essential for Government purposes. The purchasing agency is required carefully to examine the use for which proprietary data is needed and to demand only such data as is determined to be necessary to satisfy such use.

The regulations declare that generally it should not be necessary to obtain proprietary data. In advertised contracts and in contracts for standard commercial items proprietary data shall not be requested. For other supply contracts the data will be obtained only when a clear Government need is established. In such event the requirement will be specified in the contract schedule; there shall be a specific negotiation for such data; and the contractual requirement shall be separately listed.

In contrast, under contracts for experimental, developmental, or research work, in general all data including proprietary matters resulting directly from the performance of the contract must be furnished to the Government. And finally, the foregoing policies are applied to subcontracts as well as prime contracts.

I believe there is little disagreement with these basic policies. As I understand it, most of the problems which have arisen in this field have arisen in the course of the application of these policies.

In actual practice substantial agreement as to what constitutes proprietary data has not been achieved. The term is defined in ASPR as—

> * * * data providing information concerning the details of a contractor's secrets of manufacture, such as may be contained in but not limited to his manufacturing methods or processes, treatment and chemical composition of materials, plan layout and tooling, to the extent that such information is not disclosed by inspection or analysis of the product itself and to the extent that the contractor has protected such information from unrestricted use by others.

This, I believe, is the "legal" definition. Initially it was approved not only by the Government but also accepted by members of industry including some who now criticize it.

I am not aware of any specific suggestions for improvement in this language. Perhaps the language cannot be improved; perhaps it can. If so, this should be a subject for further study. Obviously, the application of this definition is one of the focal points for the problems which have arisen in the application of the Department of Defense policies.

The other principal complaints are heard. The first is that the Government will demand data which it does not need. This, of course, is contrary to the policy set out in ASPR. However, as in the case of the definition where disputes have arisen between the Government and the contractor as to what data is proprietary under the definition, we also find disputes as to whether the data in question is needed by the Government.

Secondly, when it is conceded that such data is proprietary and that the Government requires its use, contractors complain that the Government is unwilling to pay the fair value of and reasonable compensation for this information. In the negotiations which follow it is said that the strength of the Government's bargaining position is such as to overwhelm the contractor after an uneven contest.

In the final analysis, if the contractor remains adamant, in most cases the Government can acquire similar information under a research and development contract.

To a degree problems of this type may arise in any Government contract regardless of whether proprietary rights are involved. The Government decides what it needs. These needs may or may not be realistic; but I think we all must agree that this decision must remain in the hands of the Government. When the contract in question is let through a process of negotiation, the Government will determine what is a fair and reasonable price or at any rate what the Government is willing to pay for its needs.

In many cases, as we have noted, the determination of the price involves bargaining heavily weighted in the favor of the Government. This balance of power, however, is not peculiar to doing business with the Government; it occurs frequently in everyday business life.

We are struck by the dearth of practical solutions to these difficulties. Insofar as the definition is concerned, I understand that it has been suggested in the past, and perhaps this suggestion should be reconsidered, that the attempt to define proprietary data be abandoned.

Instead, the Government should specifically list all data, proprietary or otherwise, which it requires under a contract and pay the rea-

sonable value of this data. This, of course, would eliminate disputes as to whether data is proprietary within the terms of the definition. In essence, however, a similar dispute would arise in evaluating the worth of the data.

Perhaps the fair value of data required by the Government under its contracts together with the question of whether, in fact, the data is needed by the Government, could be resolved more satisfactorily if these issues were referred by the contracting officer to an especially established board or committee which has achieved a degree of expertise in these matters. This suggestion, too, is not new and has a number of obvious objections.

Certainly, it tends to interfere with and delay the procurement process. Careful consideration would be required to determine if the benefits which would accrue from the establishment of such a board would outweigh the new problems which the establishment of such a board would create.

One final word. We have heard complaints from subcontractors to the effect that prime contractors and large subcontractors, from time to time, have perpetrated certain abuses on smaller concerns in connection with the acquisition of proprietary data under Government contracts. Of course such practices, unfortunately, are not peculiar to Government contracts. They are found in everyday commercial life as well and must be defended against.

It seems to us that the best defense against such abuses is an alertness to the problem and a thorough knowledge of the subcontractor's legal rights and of the ASPR provisions governing proprietary rights and data which, as we have noted above, are applicable to subcontracts as well as prime contracts. While this knowledge cannot entirely protect the small contractor from "economic duress," obviously the first step in protecting "rights" is to know what they are. All too often we see contractors, both large and small, engage in Government procurement without even an elementary knowledge of the rules of this complex game.

It seems obvious at the juncture that further study of the Government's handling of proprietary data is necessary. The hearings held by this subcommittee, I believe, will be a useful step in this direction. It has been suggested that a joint Department of Defense-industry committee be established to rewrite section IX, part 2, of the Armed Services Procurement Regulation.

Presumably this committee would review the entire problem giving consideration to the needs of the Government and the firms producing proprietary items as well as the needs of the firms which do not sell proprietary items. This appears to me to be a constructive approach.

Thank you, Mr. Chairman, and I and the other members of my staff would be pleased to try to answer your questions.

Mr. MULTER. Thank you, Mr. McCallum. I assume that you would be willing to designate a representative of your staff to sit in on any discussions that may be had between our staff and the Defense Department to work out this problem?

Mr. MCCALLUM. Most surely we will.

Mr. MULTER. Fine.

There is just one comment I would like to make with reference to your statement, and that is to ask you to imagine what would happen

to you if you were a procurement officer for the Government and bought data that was in the public domain. How long would you remain a procurement officer? Is that not a complete answer to permitting the Government, as you suggest, to permit the Government to buy all data?

Mr. McCallum. I am not quite sure I understand your question, Mr. Chairman. Are you referring to something, this portion of my statement on page 5?

Mr. Multer. Yes. Page 7. Where you say the Government should specifically list all data, proprietary and otherwise, which it requires under a contract and pay the reasonable value of this data. How much should they pay for data in the public domain?

Mr. McCallum. Well, that is not proprietary. I would not think they would pay.

Mr. Multer. But you say proprietary or otherwise.

Mr. McCallum. Well, Mr. Chairman, let me say this: As far as these two suggestions are concerned, I merely threw them out here for the consideration of the committee. Now, as far as I am concerned, I think the principal emphasis should be on attempting to provide a better implementation of the present policy. I think, as I have been apprised of these hearings, and the testimony which has been given, that this is the area in which the difficulty has arisen, and these other suggestions which I made are something which should be in the background and only be considered if some impasse is reached in connection with implementation of the existing policy, which I think is fair.

Mr. Multer. In the approach that is suggested by one of your statements, it might be that where the Government requires the data, to give the contractor the choice of submitting the data and reserving his right to claim fair compensation for it. Possibly as to that you might establish a board to subsequently review the matter and determine what the fair value is and compensate him accordingly.

Mr. McCallum. This is a possibility. I think if we are going to establish a board to determine whether or not the Government needs data and what data would be furnished, the contract would never be let.

Mr. Multer. I am sure there are many problems in this area, and whether it is as broad as Mr. Bannerman said, I am not sure. But I feel sure he feels it is an administrative problem. The suggestion was brought to the committee's attention, and I want to bring it to their attention as a part of the record.

Mr. Smith. Mr. McCallum, you have what—about 90 offices now or thereabouts?

Mr. McCallum. Our total offices are about 50.

Mr. Smith. Fifty of them.

Mr. McCallum. Including our regional and branch offices.

Mr. Smith. In these offices do you have anybody who is a specialist in procurement or is he designated as such?

Mr. McCallum. Yes, indeed, we do. We have procurement specialists, production specialists. We have, Mr. Hipkins tells me, 37 procurement specialists at this time in these various offices.

Mr. Smith. Now, are these individuals learned in the proprietary rights angle or are they more for telling of how they can get contracts and the procedure, and so forth?

Mr. HIPKINS. Well, I think in general, they have certain capabilities in the area of proprietary rights. As a result of that, they are, of course, procurement people in general.

Mr. SMITH. What I am driving at is this: You make the statement to begin with, "We have received few, if any, direct complaints on this topic from small contractors." And I wonder if your offices are aware or would follow the complaints if they had them or they would just throw it in the wastebasket or would they write a memorandum—would they let you know? In other words, it seems to me that with all the complaints I have received throughout the United States—in Kansas, New York, and all around, since we started this—that maybe you should be in a position to take a survey but there is no need of your taking a survey in your offices if it is something that you do not pay particular attention to.

Mr. HIPKINS. It would be something that we would pay attention to, and it would be something that normally would be reported to the Washington office.

Mr. MCCALLUM. The only thing I would say, Mr. Smith, is I do not say the problem does not exist, but they have not been coming to us in apparently the numbers which you indicate they have been coming to you.

Mr. SMITH. They might not report to your office, but I just thought of some little fellow with six or seven or eight employees would have some trouble who normally runs a small business, what does he do. I am just a little bit at a loss to think that you have so few complaints.

Mr. MULTER. I think you would find the same thing that happened here. Most of the complaints that came to us on this problem are from big business, so big business would not seek out the Small Business Administration to lay the problem before it.

Mr. SMITH. I think some of our witnesses are small business.

Mr. MULTER. The witnesses, but I am talking about the complaints.

Mr. SMITH. I see. That is all I have.

Mr. MULTER. Mr. Robison. Mr. Maness.

Mr. MANESS. No questions.

Mr. MULTER. Mr. Dalmas.

Mr. DALMAS. No questions.

Mr. MULTER. Thank you very much, Mr. McCallum.

There is just one other thing I might suggest, and that is possibly you can take—and Mr. Bannerman might take his statement and your statement and use it as a basis for a bulletin that Small Business Administration might issue to procurement officers, or your small business specialists, have it available in all their offices for those interested in Government procurement. I think it would help clear up the lack of knowledge. It is lack of information about this problem that is, in small part at least, responsible for this situation.

Mr. MCCALLUM. Yes, sir.

Mr. MULTER. Thank you very much.

Mr. MCCALLUM. Mr. Chairman, I will designate a member of the staff at a later date to work with the committee. Is that all right with you, sir?

Mr. MULTER. Fine.

Mr. MCCALLUM. Thank you.

Mr. MULTER. We will make part of the record at this time, if there is no objection, the statements or letters from Tektronix, Inc., dated

March 28, 1960; that from Robbins Aviation, Inc., dated March 9, 1960, and that of the same company of March 25, 1960; a letter dated March 30, 1960, from Scientific-Atlanta, Inc.; a letter dated March 28, 1960, from Harrel, Inc.; and any other letters that may come in subsequently will be added to the record.

(The communications referred to are as follows:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
*Washington, D.C., March 30, 1960.*

HON. ABRAHAM J. MULTER,
*Chairman, Small Business Subcommittee,*
*House Office Building, Washington, D.C.*

DEAR COLLEAGUE: I am enclosing herewith two identical letters from a constituent and would appreciate it very much if you could put one of them in the record of your Small Business Subcommittee hearings as requested in the second paragraph herein.

Kindest personal regards.

Cordially,

WALTER NORBLAD.

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PORTLAND, OREG., *March 28, 1960.*

HON. WALTER NORBLAD,
*House Office Building, Washington, D.C.*

DEAR MR. NORBLAD: In last week's issue of Electronic News, I notice from the attached article Representative Multer's subcommittee is currently holding a hearing on proprietary data. We don't qualify as small business so I hesitate to write Mr. Multer. However, our problem is shared by at least one company who does qualify as small business here in Oregon. Instead of bothering you further we have discussed our problem with the Scientific Apparatus Makers' Association who are considering the problem on an industrywide basis.

In view of the possibility these current hearings may cover this same area, I am writing you to ask that you submit this letter to Representative Multer's committee if you feel it is appropriate.

Our interest extends beyond the matter of being forced to submit proprietary data. Our objection is to the Government calling for bids on a standard commercial catalog instrument designed by one manufacturer without any assistance from the Government. Each commercial instrument manufacturer is in strong competition with other manufacturers. In order to maintain a favorable competitive position it is necessary to depend upon design features that are original, distinctive and wanted by users. Since this is in the commercial field the Government does not assist in the design but enters the market like any other commercial purchaser. I feel it is improper for the Government to take the private designs (in some cases patented and in other cases not patented) and invite bids on a direct copy on production quantities from any and all who wish to bid. Even if features of the instrument are patented, the originator of the private designs has no recourse against the competitor who uses these private designs. Instead, he must seek compensation in the Court of Claims. This does not prevent a new competitor using his private designs but merely awards him compensation after a long, tedious, and expensive legal process. I feel this is unfair to our company and could be disastrous for a small business struggling to progress. Private designs are our major stock in trade for companies, big and little, in the scientific instrument business.

By the disregard of private designs the Government is encouraging copying of existing instruments and penalizing those who are originating and developing new and better instruments. Our technology is dependent on improved instrumentation. Improvement is dependent upon creative development of new and better instruments. Small and large companies that are doing the development work in this field are not asking for Government assistance but merely asking for a cessation of Government piracy of private designs.

Anything you can do to help us with this problem will be greatly appreciated.

Sincerely,

TEKTRONIX, INC.,
W. B. WEBBER, *Vice President.*

Enclosure: Electronic News clipping.

[From Electronic News, Mar. 22, 1960]

PROPRIETARY DATA HEARINGS ARE SET

WASHINGTON.—A House Small Business Subcommittee will hold hearings March 29–31 to review military procurement policy on a small firm's proprietary data.

Representative Abraham J. Multer, Democrat, of New York, chairman of this Government procurement subcommittee, said there had been recurring complaints that small business subcontractors or primes must submit their proprietary data.

He said the firms complained they were required to supply information which would disclose invaluable technological data as well as trade secrets.

The subcommittee will hear Pentagon officials, prime contractors and small business firms.

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ROBBINS AVIATION, INC.,
*Los Angeles, Calif., March 9, 1960.*

Congressman ABRAHAM J. MULTER,
*Chairman, Small Business and Government Procurement Subcommittee,*
*House Office Building, Washington, D.C.*

DEAR CONGRESSMAN MULTER: It has come to our attention that you plan to hold hearings the latter part of this month on the subject of proprietary right. I would like to make the following comments for your consideration and action.

First, let us point out we are designers and manufacturers of proprietary equipment. This equipment was developed through our research and engineering, and in many cases patented. All the functions involved were at our own expense. We have never received any help, whatsoever, from outside sources, including the Government.

We show no partiality between buyers, be they an individual, a partnership, large or small corporation, or the Government through its various agencies.

After all, all of the above are people and all should be treated alike; yet we find, when we do business with the Defense Department or the National Aeronautical and Space Agency, that the Government can confiscate the patent rights of our inventions. This statement is based on Armed Forces Procurement Regulations, section IX, part 2, dated October 15, 1958, and revised June 30, 1959, and the National Aeronautical and Space Act law in 1958, section 305. I could cite many more articles to substantiate our contention that the Government is exercising action to confiscate the patent rights of our inventions.

We wish that we could convince ourselves that such things could only happen in a totalitarian state; however, the purpose of this letter is to make sure that you, and others like you, know with absolute certainty that these things have already come to pass in the United States of America.

We most respectfully urge you to use all the powers of your command to correct these severe blows to the free competitive enterprise system of this traditional land of opportunity.

Sincerely yours,

ROBBINS AVIATION, INC.,
HUGH C. ROBBINS, *President.*

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ROBBINS AVIATION, INC.,
*Los Angeles, Calif., March 25, 1960.*

Congressman ABRAHAM J. MULTER.
*Chairman, Small Business and Government Procurement Subcommittee,*
*House Office Building, Washington, D.C.*

DEAR CONGRESSMAN MULTER: Thanks kindly for your letter of March 14, 1960, and press release dated March 15, 1960, relative to the hearing on proprietary rights and data.

I am very sorry not to be able to attend the hearings to be held on March 29, 30, and 31, but would like to submit this letter to your committee for consideration.

Robbins Aviation, Inc., is a small business manufacturing organization. All the products of our company have been designed and manufactured at our own expense. All products are of a proprietary nature and patents have either been allowed or patents are pending on them. These products are designed for end usage by any business which needs them.

We treat all buyers alike; we show no partiality as to whether they are an individual, partnership, small or large corporation, or an agency of the U.S. Government. Our products are all catalogued and carry published pricelists, and the majority are off-the-shelf items.

It is true that our products are used very extensively by various agencies of the U.S. Government. However, we find it is becoming more and more difficult to do business with the various Government agencies and in many cases we have to refuse to sell to them since they demand unrestricted use of our technical data. We bought and paid for this data and consider it a definite encroachment on our proprietary rights to make the demands which the Government does.

We have never taken a research and development contract from the Government and never expect to as long as our present laws and the procedures governing procurement continue to exist. We feel, as many other manufacturers do, that incentive is being killed by disregard of proprietary rights and patents by the various Government agencies which are backed by the laws of our country.

If corrective measures are not taken immediately, we can only end up as a compulsory state, and then the Russians will have accomplished their desire without firing a shot.

Respectfully submitted.

ROBBINS AVIATION, INC.,
HUGH C. ROBBINS, *President.*

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SCIENTIFIC-ATLANTA, INC.,
*Atlanta, Ga., March 30, 1960.*

HON. ABRAHAM J. MULTER,
*U.S. House of Representatives,*
*Washington, D.C.*

DEAR REPRESENTATIVE MULTER: I have noted in the press that a House Small Business Subcommittee under your direction will hold hearings to review military procurement policy on proprietary data of small business firms.

These are important hearings. Present procurement procedures can result in a small business making its technological data, developed at its own expense, public property simply because of furnishing its products to the military agencies. After furnishing supplies and required data to the military, a firm may find that it is subsequently required to bid on its own development against other bidders which have been furnished complete manufacturer's drawings at no risk or cost to themselves.

In addition to your hearing on the rules pertaining to "proprietary" data, let me urge you to direct your attention to the wide freedom given to military procurement agencies to declare what is "proprietary" data and what is "other" data. Tightening the rules regarding proprietary data will not bring relief if overzealous procurement agents are allowed to declare a large body of data as nonproprietary, thereby not subject to consideration under existing policies. Present definitions allow many hard-won technological developments and innovations to be denied the protection offered to proprietary data. In particular, the concept that proprietary data must represent "trade secrets" that cannot be disclosed by inspection or analysis offers little protection for the know-how and ingenuity of a small business. Few products or devices will fail to yield their secrets to a thorough (and usually costly) analysis. However, I question that this is justification for making drawings available for the ultimate use of prospective bidders who have no interest in or responsibility for maintaining and improving the technological development represented by the drawings.

This firm was recently faced with a dilemma that points up the importance of this problem to small business. On the one hand we could furnish as a part of a supply contract complete sets of manufacturer's drawings for equipment developed at our risk and our expense. Future distribution of these drawings in solicitation of bids would make them available to any firm merely because it has been resourceful enough to get its name on a bidders' list. On the other hand, our inability to convince the contracting officer, who was completely unfamiliar with this type of equipment, that the drawings represented our stock in trade placed us in the position of either furnishing the drawings or jeopardizing our opportunity to get a very desirable contract. We accepted the contract on the Government terms, even though we did not consider it wise to part with our drawings.

The course of legislative directions to the military services should be directed to a broadening of the definition of proprietary data. Within the reasonable

needs of national security, the services should neither demand nor expect data that would not be furnished to any other major customer. Furthermore, when data developed with private funds is furnished it should be restricted to bona fide operational use of the Government, but not for future procurement or distribution outside the services.

This company appreciates your attention to this problem and hopes that the observations given above will be helpful in understanding our problems and viewpoint.

Cordially,

SCIENTIFIC-ATLANTA, INC.,
GLEN P. ROBINSON, Jr.,
*President.*

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HARREL, INC.,
*New York, N.Y., March 28, 1960.*

Hon. ABRAHAM J. MULTER,
*U.S. House of Representatives,*
*Washington, D.C.*

DEAR REPRESENTATIVE MULTER: I note from the press that you have scheduled hearings on the armed services requirement that contractors must disclose their proprietary data, in order to sell to the military. I would like to urge you to do everything possible to secure a reversal of this policy. It is not only basically unfair but also stifles initiative and virtually chokes off small business contribution to the defense effort.

We are a very small company producing nothing but products for military end use. Two years ago I quit a very well paid and comfortable job to work out some new ideas in the field of transistors and magnetic amplifiers. By dint of a very great deal of hard work and the burning of much midnight oil, my associates and I have now built up a very nice line of proprietary devices, which we believe to be a considerable improvement over previous techniques and a real contribution. This development was done entirely on our own savings; not one penny of Government money was used and every sale we have made was at a competitive price with no extra funds for development work.

We now find again and again, however, that the Government prime contractors, who are our customers, are demanding that we make full disclosure of all our proprietary information and know-how, citing their contract requirements as a justification.

The workload at most large prime contractors now is relatively light, and they are trying to do as much as possible of the work themselves to keep their shops busy. The only defense we have is that it would cost them so much to go through all the development that we have done that it isn't worth their while. Once we disclose the data we might just as well apply for unemployment insurance. Even if the prime contractor doesn't use the data, the armed services spread it around to other firms, small and large. It is all done under the most pious sounding reasoning, of course, but the result is the same.

On the other hand, if we do not disclose the information in full, the prime contractor simply reports to the Government that no acceptable device is available, and is then subsidized by the Government to develop a unit competitive with ours.

The usual justification for all this is that the services need the data so they can repair the units in the field. However, our devices are all furnished completely potted in a rock-hard epoxy plastic for protection against environmental conditions and are clearly nonrepairable.

It is a very dangerous condition to the future of small business, and we urge you to do anything you can to help. For obvious reasons we would appreciate it if our company name was not used in your hearings.

Very truly yours,

H. E. HARRIS.

Mr. MULTER. Now, the last witness is Mr. John Marschalk. Will you come forward, sir.

## TESTIMONY OF JOHN MARSCHALK, A CONSULTANT IN THE FIELD OF GOVERNMENT CONTRACTING

Mr. MARSCHALK. I do not want to scare you with all this material, Mr. Chairman.

Mr. MULTER. Please identify yourself for the record, with your full name, residence address, and business affiliation.

Mr. MARSCHALK. Yes, sir.

Mr. MULTER. We will make your formal statement a part of the record and you may briefly summarize it for us.

Mr. MARSCHALK. Thank you, sir. Mr. Chairman, my name is John Marschalk. I live at 2850 Belden Drive, Los Angeles 28, Calif. I am a consultant in the field of Government contracting.

In this work, I have been associated for a number of years with a number of smaller firms which specialize in production for defense. It is in the interest of such companies that I am most grateful for the opportunity to be here. I should make it clear, however, that I am not representing any one of these companies specifically, but am on my own in what I have to say.

My particular interest in the subject of proprietary rights stems from two things:

(1) A constantly increasing proportion of my work for clients being concerned with their problems in seeking proprietary protection, and

(2) My most sincere conviction that our Government is shutting itself off from the best ingenuity and inventiveness of private manufacturers by failing to provide the degree of proprietary protection necessary for incentive.

Because time is inevitably growing short, I would not even cover the statement I have here in full, but I would like to submit it to you for the record.

I would like also, if I may, to submit for the record, as earlier requested, a copy of this report which was originally prepared for submission to the Office of the Assistant Secretary of Defense (Supply and Logistics), under date of March 1. I understand the gentleman it was sent to had resigned at the time it reached there but it is in their files.

Frankly, it is an attempt to summarize the problems relative to ASPR IX, part 2. It cites specific parts of the regulation. I think it will clarify some of those items which were, perhaps, not clarified during the testimony by Mr. Bannerman. I hope it will be helpful, both to industry and to Government, because it is in the interest of the country that it was prepared.

So if I may submit this report first, Mr. Chairman.

Mr. MULTER. The committee will receive the document for its record and will determine later whether or not to put it in the record in full or merely a summary of it.

(The document referred to is in the committee files.)

Mr. MARSCHALK. Thank you, sir.

May I next state that quite a bit was made about the fact that proprietary data is not really required of small companies acting as subcontractors. And I would like to submit to you for the committee's use, several documents used by the military, and several state-

ments by the military which refute the contention that prime contractors are not required to get data from the suppliers.

First is a document called Spare Parts Provisioning Document for USAF Aeronautical and Associated Equipment Contracts, USAF No. MCP71–673 of January 1959.

Incidentally, this was issued after the revised ASPR. And I would call your attention for the record to page 5 and paragraphs 3 and 4 marked on page 5 which specifically require that prime contractors obtain drawings and sketches and data from their vendors.

Second, if I may, I would like to submit Navy document SAR–400 issued April 24, 1958, and still in effect, covering "Supply Item Provisioning for United States Navy Production Contracts," covering special aeronautical requirements.

And again I would call your attention, for the record, to page 5, item 5(a), covering vendor items technical data in which a detailed set of manufacturing drawings is demanded from the vendors of the prime contractors who have that specification referenced in their contracts.

Third, if I may, I would like to submit MCP 71–77, which is the USAF Materiel and Services Engineering Data Requirements, and call your attention for the record to paragraph 3, subparagraphs (a) and (b), which recite mandatory vendor data requirements which are enforced by the services on the prime contractors.

Fourth, I would like to submit for the record this copy of a letter from the Convair Division of General Dynamics Corp. which advises a subcontractor that "Convair 'cannot delete the "Rights in Data-Unlimited" clause from its purchase order for supplies,'" and says that the purchase order is placed under a prime contract "which contains ASPR 9–203.1, but not 9–203.2."

To clarify to the committee, that is the so-called "fail-safe" clause to which Mr. Bannerman made reference in his testimony. The fact it is not in the prime contracts exerts the specific demand on the sub to comply with the furnishing of all proprietary data without the right to negotiate at the time the contract was let and without the time to exclude anything.

Lastly, in this list of submissions, I have before me a copy of an internal memorandum written by a colonel, staff judge advocate, in answer to a request by a prime contractor. Now, I could not obtain this without agreeing not to reveal my source. However, I saw the correspondence. Three small company suppliers, proprietary manufacturers, asked that the prime relieve them of accepting the unlimited rights in data clause and the requirement to submit full proprietary data. In fact, they said: "If you do not take this out, we will not sell you our products." The prime had done business with these subs over a period of years, felt they were most competent and queried the military on whether an exception could be allowed.

This answer, written internally within the Air Force, in one paragraph, covers the situation:

> Assuming that the Government has the same requirements as when the contract was entered into, the Government must insist on rights in data unlimited. If data sought for proposed subcontractors is to be supplied in satisfaction of prime contract provisions, it must conform to prime contract requirements. It does not appear this is possible unless rights in data unlimited clause is inserted in subcontracts.

The name is obliterated but it is signed by a USAF colonel, judge advocate. I would like to submit that in support.

Finally, gentlemen, I would like to call your attention——

Mr. MULTER. Do you have the other documents?

Mr. MARSCHALK. Not to submit, but one thing I have to read from.

Mr. MULTER. Let me interrupt you at this moment.

Mr. MARSCHALK. Yes.

Mr. MULTER. Each of those documents will be received by the committee and we will review them and decide how much of them should be put in the record.

Mr. MARSCHALK. Thank you, sir.

(The documents referred to were received for the committee files.)

Mr. MARSCHALK. There was held in Pittsfield, Mass., on July 14, 1959, a meeting for the purpose of acquainting industry with the requirements imposed by new document MIL–D–70327. It was conducted by Mr. James H. Mars who is, I believe, in the Bureau of Naval Weapons of the Navy Department. On page 18 of the minutes of that meeting there is a most significant quotation I would like to read in parts:

Section 3.6 states:

"In addition to the requirements of the contract or order, for classes and types of drawings to be submitted, it shall be the responsibility of the prime contractor to include the requirements of specification MIL–D–70327 in contracts or orders with subcontractors and to assure compliance therewith." Under the terms of the specification, the prime contractor, not the subcontractor, is responsible for providing documentation.

and I will eliminate a small part of the quote and finish with:

Recently, I was brought into one of these cases and the subcontractor was informed that in order to obtain the subcontract, documentation was a requirement.

I will be glad to let the committee have this, but not submit it, if you would like to refer to it. Or if you wish to accept it, fine.

Mr. MULTER. The committee will receive it for its records and appropriate summaries or excerpts will be placed in the record at a later time.

(The document referred to was received for the committee files.)

Mr. MARSCHALK. Mr. Chairman, I regret that I did not have opportunity to prepare an advance formal statement for distribution. I did spend some time last night to complete the statement that I have submitted.

Today I listened with considerable interest to the testimony by Secretary McGuire and Mr. Bannerman and other members of his staff. I was particularly interested in Mr. McGuire's reference in his testimony to the fact that—I cannot quote it because I do not have it right in front of me, he used the word "designs," "proprietary designs," as something that it would be desirable to protect, and I would call your attention to the fact that the definition of "proprietary data" in ASPR, part IX, paragraph 2, specifically excludes designs. I get the impression that the Secretary himself, because he cannot be familiar with every detail, is not aware that there is no provision for the protection of a design itself.

I noticed also that Mr. Bannerman, in his comments, said that the second set of drawings was not necessarily a solution—that it had

been suggested by industry. I would respectfully submit that when a procurement document requires "manufacturing drawings," and this, incidentally, was a requirement imposed by the IFB cited the other day (was it by Mr. Hahn, I think), that there is only one kind of a manufacturing drawing, unless you make it over into what is a second set, and that when the military document calls for a manufacturing drawing, it means something from which something can be manufactured. When the contractor complies with that, he is automatically forced to give up his proprietary data, and I believe that was the contention that Mr. Hahn was endeavoring to make before this committee.

I would like, if I might take a bit more time, to show you an example of this. I have back of me this picture which is of an actuator. This is a very common type of component item. You will find actuators in aircraft, even in that 4100 trailer Mr. Marcheschi showed you the other day.

It is a very precise device, not only this, but the manufacture of actuators is highly competitive. I have torn out a copy, page 215, of the Aviation Week Buyers' Guide; there were listed 158 companies supplying actuators, many of them small, some that used to be small that have unfortunately been bought out by large business, and some large businesses. But this sort of device is typically developed entirely at private expense. There may be some exceptions where the Government has employed one or more contractors to develop special actuators. The fact is, an actuator is always special. That is to say, it follows the predecessor art in respect to the company's like developments, but it is unique to a specific need. The actuator for the flaps on a 707 airplane must exert a precise force through a precise distance of travel in a precise amount of time.

It receives an electrical impulse and converts that into the mechanical energy to exert this force, and all this must be accomplished as a rule in a relatively limited space.

Now, when a prime contractor or an aircraft company building a private airplane needs an actuator, it does not enter into an R. & D. contract with the supplier. It says:

**We need an actuator that will exert X force through Y distance in Z time and fit in this envelope of space.**

And usually five, six, or more companies will go back, check what they have, and start to do a redevelopment of what they have to see if they can meet this need. This is common practice to which every industry man would testify.

Now, when they do this, it is their design. There is no risk, no cost to the Government, and they offer these things to the buyer. The buyer selects the one he thinks represents the best combination of quality, delivery, reliability, price—he evaluates all those things and then he makes his purchase of the one he feels best fits the need.

At this point, in normal industry practice if, for example, the actuator were being supplied for a 707 Boeing civilian aircraft, the builder of the actuator might well supply drawings for evaluation and maintenance use by Boeing Airplane Co., and each drawing would be stamped to the effect: "This is a confidential release, a confidential disclosure. This drawing is my property. You may not release it."

And that stamp would be honored, and if it were not honored, there is certainly ample legal indication that there are grounds for redress in case the drawing were disseminated without the permission of the company that tendered it.

Now, however, in the military, the demand is to identify proprietary data, and let me indicate to you what is involved.

Here is a drawing merely for the housing of an actuator. It is one of 95 such drawings on the actuator for which this is the housing covered by this drawing. Now, that is a simple part, and most assuredly, it is a lot simpler than the trailer we were looking at the other day, and yet, frankly, gentlemen, I would defy any so-called competent manufacturer to duplicate this part as a spare part without access to the drawing. It could not be done. The design becomes a trade secret for a simple reason: that anyone measuring the dimensions on this one example would never know which ones are on the center of the tolerance, which are on the edge limits of acceptability, and therefore he could not set up his own tolerances from the examination of this part.

This is the area that we in industry are trying to get recognition for, because when we deal with the military, even in the event under a supply contract that we are permitted to negotiate for proprietary data, if we block out, as on this copy of the same drawing, just the tolerances, we would render this drawing utterly useless. There are over 175 tolerance designations on this very simple part. This part was cast by small industry, it is regularly machined by small industry, this is a small industry type part, but it is also in our opinion the kind of proprietary item for which small industry deserves protection.

I would conclude by saying I do not feel, Mr. Chairman, that this subject should become a matter of case histories where they, of themselves, become the issue. I feel that the case histories submitted at this hearing were to illustrate basic principles involved, and it is with principles that we should be dealing. The principle is the matter of incentive. Are we honestly giving to our industry the kind of incentive we need to work according to the true and best needs of Government? I do not believe we can outbuild Russia with low-bid weapons. I do not think that we can shop for technology in the bargain basement of supply.

I sincerely say to you, sir, and to other members of this committee, that if there is one shred of inadequate incentive in the time of a cold war or a hot one, this is a serious problem. I do not think we can fight a hot war or a cold war with a lukewarm industry. We must provide the incentive. I think it can be done simply. Mr. Scott said the other day this was a complicated problem. I think the simple thing is to establish by definition that proprietary data shall be recognized by the Government in the same manner as would be data prepared in civilian industry. It is quite true, sir, that if someone can take this article and copy it, and it is not patented, he is free to do so and every competitor recognizes it.

But it is equally true that if the data is furnished, then there is obviated the necessity of making any effort to discover how to copy the article. This is what we wish to protect. This is the initiative we need, and I feel if we have this incentive, you will see not merely an acceptance among industry or an acquiescence, but the enthusiasm that we need at this time.

I thank you very much for your kindness in hearing me.

Mr. MULTER. Thank you for that very excellent statement, Mr. Marschalk.

(The prepared statement submitted by Mr. Marschalk follows:)

STATEMENT OF JOHN MARSCHALK

Mr. Chairman and members of the committee, my name is John Marschalk. I live at 2850 Belden Drive, Los Angeles 28, Calif. I am a consultant in the field of Government contracting. In this work, I have been associated for a number of years with a number of smaller firms which specialize in production for defense. It is in the interest of such companies that I am most grateful for the opportunity to be here. I should make it clear, however, that I am not representing any one of these companies specifically, but am on my own in what I have to say.

My particular interest in the subject of proprietary rights stems from two things:

(1) A constantly increasing proportion of my work for clients being concerned with their problems in seeking proprietary protection, and

(2) My conviction that our Government is shutting itself off from the best ingenuity and inventiveness of private manufacturers by failing to provide the degree of proprietary protection necessary for incentive.

Because time is inevitably growing short, I will endeavor to make this statement as brief and pertinent as possible. First, if I may, I would like to introduce for the record a copy of a 34-page report which I prepared on March 1 of this year for submission to the office of the Assistant Secretary of Defense (Supply and Logistics). The original was sent on that date to Mr. Falvey of that office, a gentleman, I understand, who has since resigned.

This report attempts to make a summary review of the problems surrounding the policy and administration of armed services procurement regulation section IX, part 2. It is, quite frankly, a plea, based on the facts as I have found them, for the urgent need of the Government to evoke the best inventiveness of private industry—at a time when there is no second choice—and no second chance—if we fail to achieve the maximum technology of which our free enterprise system is capable.

Along with this report, I ask leave to submit detailed documentary evidence of the points made in the report. The report notes, for example, that the policy expressed in ASPR IX, part 2, to "limit demands for data" is far from being supported by the procurement actions of the military services. To demonstrate that any such limits are few and far between, I would like to hand over for the use of your committee a document known as Spare parts provisioning document for USAF aeronautical and associated equipment contracts. This is designated MCP71–673. For the record I would respectively call your committee's attention to marked paragraphs (3) and (4) on page 5 which indicate requirements for reproductible drawings on all repairable items obtained by prime contractors from vendors.

Next, I would like to hand you a Bureau of Aeronautics document of April 24, 1958, which I understand is currently in effect. This is SAR–400 covering supply item provisioning for U.S. Navy production contracts. I would call your particular attention to step 5A on page 5 which makes mandatory the requirements for technical data to be supplied by means of detail manufacturing drawings from the vendors to Navy prime contractors.

Next, here is a copy of MCP 71–77, Engineering Data Requirements for USAF Materiel and Services, June 1, 1959. Here again, the requirements imposed upon vendors are clearly and unmistakably set forth in article 3b. As you will note, this document when made part of a prime supply contract—and this is understood to be customary procedure—says, without exception, "The vendor shall be required to comply with all requirements specified herein for the submission of data and punched card accounting machine cards.

Further in my report I have noted the contention of the Department of Defense that the subcontractor is generally in an inferior position to that of the supplier who is able to conduct negotiations directly with his Government. In this connection, I would like to submit to you a copy of a letter from the Convair Division of General Dynamics sent under date of March 9, 1960. The recipient asked me to delete his name, but the letter is otherwise a true copy. It

states that Convair "cannot delete the 'Rights in Data-Unlimited' clause from its purchase order for supplies, because the order was issued under a prime contract which contains ASPR 9–203.1, but not 9–203.2."

Another prime contractor recently encountered the refusal of three of its most respected proprietary suppliers to do business unless they were permitted to retain their proprietary data position. As a result of that refusal, the prime asked the military to permit an exception so it could make the needed purchases. On my promise not to reveal the source, I was permitted to make this copy of the internal USAF memo from a colonel, Staff Judge Advocate, which indicates that this prime must demand the data with unlimited rights.

Finally, in respect to the demands made upon prime contractors to obtain complete data from subcontractors and suppliers—regardless of the fact that purchases involved may be of items designed and developed entirely with the ingenuity and at the expense of the supplier—I would like to quote for you this excerpt from the minutes of a meeting on "Preparation and Procurement of Engineering Drawings, etc." conducted by James H. Mars from the office of the Chief, Naval Bureau of Weapons. This meeting at Pittsfield, Mass., on July 14, 1959, was to acquaint industry with the requirements and obligations imposed by the recently issued specification Mil–D–70327, the new standard for drawing preparation. I quote (p. 18):

"Section 3.6 states: 'In addition to the requirements of the contract or order, for classes and types of drawings to be submitted, it shall be the responsibility of the prime contractor to include the requirements of specification MIL–D–70327 in contracts or orders with subcontractors and to assure compliance therewith.' Under the terms of the specification, the prime contractor, not the subcontractor, is responsible for providing documentation to the Government. You may call on your Government securing activity to assist you in obtaining this documentation. Recently, I was brought into one of these cases and the subcontractor was informed that in order to obtain the subcontract, documentation was a requirement."

I find this language of Mr. Mars of striking contrast to the testimony given by representatives of the Department of Defense at hearings on February 8 and 9 before the Committee on Armed Services of the U.S. Senate. There, in discussing the treatment of "items developed by private industry," the DOD witness says that one alternative is "(a) To adopt a firm policy of not buying the product from a firm unless it furnishes all specifications, including a set of manufacturing drawings and a grant to the Government of the right to use such drawings for competitive procurement, even though the item was developed by the firm at its own expense." But the DOD witness says of this alternative, "We do not subscribe to (it) * * *. We believe the adoption of such a policy, even where the product is a standard commercial item, is unjustifiable unless reasonable compensation is paid, including the value of the drawings, reimbursement of the research and engineering involved, and the loss of profits."

If Mr. Mars and the witness before the Senate committee are both correct, apparently the military has one policy when dealing directly with contractors who are in a position to negotiate for their rights, and quite another policy when demanding material from subcontractors who are told they must take it or leave it.

Mr. Chairman and members of the committee, I have no fight with big business, or with the Congress, or with the Department of Defense. But I do indeed have a fight with any individual who seeks to treat casually the dangers of destroying our private production incentive—whether that individual minimizes those dangers through failure to gain personal acquaintance with what is happening or whether he finds himself content to cling to pious expressions of policy and sentiment because he places too high a faith in the idea that an expression of policy means that such policy will be automatically observed.

In the last 2 days you have heard some competent, and I think courageous men, from productive small business, tell you of their disillusionment, and tell you in some cases of their decisions to drop out of the defense development picture in spite of their past successes and technological contributions. I have personally watched many other small productive firms disappear from the scene altogether, simply because they found the task of doing business with their Government too disheartening to continue. The witnesses you heard were from the Strategic Industries Association. Though I no longer have any connection with that organization, I can tell you that at least five of the seven founding

companies have ceased to exist as independent entities. At least three of those five made most important scientific and technological contributions to our defense before their demise.

In closing, I would like to give you a quick look at the kind of specific item and situation regarding it which tends to defeat all private incentive. More specifically, I hope to demonstrate the impracticality of the proprietary data definition as it is contained in the present ASPR and the equal impracticality of what has been referred to as the second, or "emasculated" set of drawings.

Let me, if I may, show you a picture of a device—in cutaway—known as an actuator. I picked this device because the design and production of actuators is one of the most highly competitive of all components production. I have torn page 215 from the 1960 Aviation Week buyers' guide and have counted 158 separate companies offering to furnish actuators. Many of these are small companies. Some, like Bohanan Manufacturing, Clemco Aero Products, Royal Jet and Vard, Inc., were independent small firms just 3 or 4 years ago, but have now been bought by larger companies.

Generally, an actuator is an electromechanical device. It receives an electrical impulse and converts it into a mechanical thrust. Nearly every actuator that is produced is developed for some unique and specialized job. At the same time, each new actuator is, in considerable part, the child of its predecessors. This is to say, in developing an actuator, a specialist firm utilizes the background of its past experience to develop a device with ultraprecise performance for a highly specialized need. Actuators will be found all over airplanes, on missiles, and even on that model 4100 trailer which Mr. Marcheschi showed to you yesterday. They work the flaps on wings, lower the landing gear, control cooling vents, etc. The actuator arm must exert a specific force through a precisely limited distance and accomplish its task as a rule in a closely confined area of space.

As I said, many companies offer actuators. In general practice, the using contractor makes known his size and performance requirements and invites quotations. Each would-be supplier conducts his development at his own expense and risk. Several models and different designs are usually offered. The buyer selects the one he feels represents the best combination of quality, delivery, reliability and price. The buyer to this point has had no risk and no expense. All this risk and expense have been at the hands of the private developers. In fact, if before the order is placed, the prime contract is canceled—a not unheard-of situation—all the competitors will have nothing to do but "wait till next year." They took a chance and missed.

Let us say, however, that one company does get an order at its quoted price. And let us assume that in this rare case the buyer agrees that the seller is, in fact, entitled to withhold his proprietary data. Let us go further and say that the buyer agrees that tolerances come within the definition of what is proprietary.

Here is a drawing of one part of a typical actuator. Here is the part made from that drawing. It has a simple appearance. It is simple enough that the casting could be cast by one small business and the machining done by another. In fact, that is the way this part is made. Except for just one thing. All the know-how needed to make this part is on this drawing. Without the drawing, I would defy any so-called competent manufacturer to make a "Chinese copy" of this housing which could be satisfactorily used as a spare. The reason, as a shopman would quickly testify, is that no measurement of these dimensions could tell you which ones were on the center of a given tolerance, or which others were on the edge limits of acceptability. Yet, on this obviously simple part, certainly much more simple than the 4100 trailer you were shown yesterday, there are over 150 tolerances critical to use. The slightest error in relationship of one of these holes to another will produce the error which causes a failure to mesh the gears it must contain.

Here, I have the same drawing with red patches over the tolerance information. With this information obliterated, the drawing is useless. And the part, without a fully detailed drawing, is incapable of reproduction or even proper maintenance.

The point I am endeavoring to make, gentlemen, is that apparent simplicity is the point of downfall. It leads to false conclusions. It leads a military purchasing activity to conclude that information can be readily discovered by inspection or analysis, when that information cannot be readily discovered at all. It assumes a dedication to public knowledge when no dedication has in fact taken

place. And it leads a Department of Defense to develop a definition of proprietary data which is far more narrow than the accepted and legally recognized range of true trade secrets.

Strangely, the DOD, I find, is well aware of the hazards of reverse engineering. In the testimony to which I previously alluded, I find this interesting quotation:

"Apart from the discouraging impact of such a practice on private research and development work and resulting private invention and innovation, reverse engineering is not easy to do. Where complicated equipment with precise tolerances, specialized treatment of materials, or critical manufacturing procedures are involved, it is very difficult, time consuming, and sometimes even impossible."

Such hazards can be obviated, of course, merely by administrative decision that the drawings must be furnished with full rights to reproduction. That, as I have said in the earlier part of my testimony, is precisely the requirement being enforced against the productive small subcontractors. The idea that a buyer would permit the deletion of tolerance information is idiotic. The drawing would then cease to comply with the requirements of Mil–D–70327 and would not be acceptable to the military. No buyer would dare take upon himself the granting of a right which his prime contract specifically denies to him.

Knowing that the minute his drawings are circulated, there are 157 companies capable of using this free know-how to their advantage, the small inventive company has lost all incentive for further private development. Knowing that less than a complete drawing is hazardous to performance, the small company cannot bring itself to be party to such a practice.

Yet, gentlemen, I believe that all of this complex difficulty could be quickly eliminated. Let that drawing which was privately conceived be marked with the same restrictive notice which would be both recognized and legally enforceable in ordinary industrial practice. Let the military have the full use of such drawing for all but reprocurement from others. There and then incentive would be restored.

I thank you for your kindness in hearing me.

Mr. MULTER. Are you an engineer, sir?

Mr. MARSCHALK. No, sir; I am not. I have owned portions of manufacturing companies and have worked at lathes and milling machines. I have a little appreciation from that of what it takes to do this sort of work.

Mr. MULTER. Do you know how they measure tolerances?

Mr. MARSCHALK. I know how we go about setting tolerances, as a rule.

Mr. MULTER. Can you set the tolerance if you cannot measure it?

Mr. MARSCHALK. In a sense you can tell from the production capability of a given machine within what range a tolerance will be economically feasible.

Mr. MULTER. You are giving us the ultimate use of the contraption or mechanism. I am addressing myself to the moment of the manufacture of the instrument or breaking it down to your drawings. You indicated that unless you take out of your drawings all the indications of the tolerances then the drawings are of no use. The question that occurs to me with reference to the item that you have picked as an example for your statement, is whether or not, first, is the item patentable, are these actuators patented, and if they are not, then why cannot that instrument be broken down by reverse engineering and make your drawing?

Mr. MARSCHALK. Mr. Chairman, as to taking one of these and breaking it down to reverse engineer it so it could be made by someone else, I refer to this housing, I think most competent engineers would testify it would be virtually impossible.

Mr. MULTER. We are not concerned about the housing, we are concerned about the mechanism in the housing, that is what I think we are really addressing ourselves to.

Mr. MARSCHALK. Let us make this the next step. All right, sir. Suppose that a competitor, or would-be competitor, did in fact have a complete actuator. I will agree with you, sir, that a competent manufacturing firm could, if it spent sufficient discovery effort, which is extremely laborious and very costly, develop for itself, a new set of drawings from which it would produce a reasonable facsimile.

Mr. MULTER. That is the risk that every manufacturer takes who does not patent his item to preserve his claim for proprietary rights in the item. If anybody else can copy it by reverse engineering or otherwise, if he has not patented it, he has got to stand for the competition that is thereby brought about; is that not right?

Mr. MARSCHALK. Yes, Mr. Chairman. I wish to reiterate that any company is free to take this item and exert the effort of analysis and discovery and come on the market with one identical to this if it is not patented and so long as they do not use our trademark. None of us object to this. What we object to is the calm assumption that because that could be done, at whatever expense of effort and ingenuity, it is therefore not necessary to use that effort and ingenuity and you are freely entitled to use these drawings which we have always restricted and which we have never given to anyone except as a confidential disclosure. We do not feel that it is right to obviate all this expense and hand to a fellow who has nothing but machinery and has never created or engineered a darned thing the whole know-how to produce this thing without any effort on his part and then to call him a competitor. He is not a competitor if he has no engineering expense, he has created nothing.

Mr. MULTER. What you are objecting to in substance is the law or regulation which says that an item that can be produced by reverse engineering cannot be claimed to have proprietary rights?

Mr. MARSCHALK. Mr. Multer, we do not claim proprietary rights in the idea. We claim proprietary rights in the drawing which describes that item and that is far different.

Mr. MULTER. The regulation says so far as the Government is concerned there are no proprietary rights if the drawing can be produced by reverse engineering or otherwise. Your objection is to being required to furnish the drawing on an item on which you have no proprietary rights?

Mr. MARSCHALK. Sir, I think we have all the proprietary rights in the drawing.

Mr. MULTER. You have in the drawing but not in the item.

Mr. MARSCHALK. Indeed we have. Not unless the item is patented and this is the key issue on definition.

Mr. MULTER. So am I not right, the objection you are making is on definition which excludes a drawing from proprietary rights if the drawing can be produced by reverse engineering?

Mr. MARSCHALK. We are 100 percent in agreement. You are right, sir. That is exactly my objection at this point, and I feel that objection is sustained by the law of trade secrets.

I believe one segment was quoted by Mr. Lent the other day, that very definitely said in normal commerce we would be entitled to restrict our drawings.

Mr. MULTER. Instead of changing that definition, should we not simply provide if the Government wants those drawings, it should pay for the cost of those drawings? I do not mean copying, but producing them by reverse engineering.

Mr. MARSCHALK. Maybe this, Mr. Chairman, would be an advance from where we are. But may I point out to you this problem: The mere cost of producing the drawings, and I do not mean the physical reproduction—we are talking about the development, and so forth—is far from being adequate compensation to the individual who has produced them.

If, for example, and this happens most frequently, he engages in five developments, only one of which is successful, you would say, "We will reimburse you for your 20-percent success and let you eat the 80 percent," so that would not be fair, and certainly the Government would not take on all the unsuccessful research.

Secondly, I would say this is analogous to someone asking an attorney what price would you place on your law library if you could not replace it.

This is the bread and butter of the firm that offers it. This special know-how and ingenuity has been built up over years. It cannot price it at a price that the Government would be willing to pay.

Mr. MULTER. Why does it not patent it?

Mr. MARSCHALK. Sir, patents in military procurement, as you have been informed in the hearing and are well aware, are virtually valueless under the present circumstances. They are costly, and, moreover, the state of the art is advancing so rapidly, that this item patented might have little value as a patent, perhaps 6 months from now. We do not know. It is quite true we could turn over many designs a year old and say go ahead and make it because we have already superseded this art. Our technology——

Mr. MULTER. That is why a design patent has little or no value. You leave out one line or add one new line, and the design is different.

Mr. MARSCHALK. Precisely so.

Are you a patent attorney, Mr. Chairman?

Mr. MULTER. Just a lawyer.

Mr. MARSCHALK. Your familiarity with it makes me surmise that you might be.

Patents under title 28, United States Code, section 1498, as presently interpreted by the GAO, are considered valueless to small business as a rule. They cannot afford suits in the Court of Claims and all that process.

I might say, sir, if I could, to comment on that section of the law, that a review of the way in which it came into law would be most wholesome. It is my impression it was written into law to meet emergency situations and inadvertent situations where somebody infringed a patent unintentionally and the Government did not want to be estopped from getting delivery, and it is certainly being applied in a much more different manner today, sir.

Mr. MULTER. Mr. Smith.

Mr. SMITH. Mr. Chairman, I would like to commend Mr. Marschalk on his statement. I have known him for a period of time and I think he is very well qualified on the subject. At the same time, I think he is as interested in working it out in fairness to the Government, as he is in connection to the business.

Mr. Chairman, in view of the fact this is the last witness, this is the first time I have had the privilege of sitting with you as chairman; I know these meetings were held pretty much at my request and I wish to express to you my appreciation for your time and patience and courtesy, and I believe you have handled these in a splendid manner, and I am indeed deeply encouraged and I commend you for it.

Mr. MULTER. Thank you.

Mr. Maness. Mr. Dalmas. Thank you very much.

Mr. MARSCHALK. Thank you very much.

Mr. MULTER. The hearings on this subject will stand in recess subject to the call of the Chair.

(Whereupon, at 12:20 p.m., the hearing was adjourned.)

(The following letter was subsequently received by the chairman:)

HOLLYWOOD, CALIF., *April 16, 1960.*

HON. A. J. MULTER,
*Chairman, Subcommittee No. 2, Select Committee on Small Business, House of Representatives, Washington, D.C.*

DEAR MR. CONGRESSMAN: In view of the limited time available when I presented my testimony before your committee during the recent hearings on proprietary rights in technical data, I omitted a most vital point which I would appreciate the opportunity to add by having this letter included in the record of the hearings.

There appeared during the testimony of a witness from the Department of Defense (Mr. Bannerman, I believe), a suggestion that subcontractor complaints about data requirements were arising from possible demands by primes which exceeded the actual requirements imposed upon the primes by the military. Also in this DOD testimony, it was indicated that a so-called fail-safe clause (ASPR 9-203.2) protected supply contrctors from having to furnish proprietary data which might otherwise be demanded by various specifications referenced in the contract.

During my own testimony, I submitted for the record the requirements of a series of specifications customarily made part of military contracts. Mil-D-70327, for example, is mandatory in all, according to Secretary McGuire's transmittal of April 9, 1959, to the Assistant Secretaries of Army, Navy, and Air Force. These specifications are precise and extensive with respect to the data to be furnished.

Under the circumstances, it would seem proper for the committee to inquire whether it is true that supply contractors and/or supply subcontractors are relieved from compliance with these specifications by means of the so-called fail-safe clause. I believe the committee will find that this protection is honored more in the breach than in the observance:

1. A prime contract involving any portion of research and development work—even though the major portion of the contract may be for supply—cannot contain the "fail-safe" clause. Hence the protections of this clause cannot be extended to supply subcontractors under such prime contract. The clause actually used (ASPR 9-203.4), does not invalidate the requirements of referenced specifications, and the extension of these specifications to subcontract suppliers is therefore mandatory. Regardless of the proprietary nature of privately developed items supplied by subcontractors to primes doing R. and D. work, enforced compliance with these specifications means that proprietary subcontractor data cannot be protected.

2. Prime supply contracts in which the "fail-safe" clause of ASPR 9-203.2 does appear, are being rendered devoid of protection by the simple device of

forcing the supplier to agree that none of the information he wants to protect is proprieary. An added clause is provided in the Air Force Procurement Instructions (AFPI 9-203.2(b)) which accomplishes this purpose. It reads:

"For the purpose of paragraph (h) of clause — entitled 'Data,' the contractor agrees that none of the data required by items — and — is 'proprietary data,' as defined in said paragraph (h)."

Paragraph (h) is the so-called "fail-safe" clause. The type of item inserted in the blank space by reference will appear in the schedule of the contract as, for example, "Three Complete Sets of Manufacturing Drawings."

3. Finally, while a prime contractor—either a supply prime contractor, or a prime contractor doing research and development work—can (in theory, at least) negotiate for the protection of his own proprietary background data, a subcontractor is never privy to this negotiation. Hence, while a prime contract might provide for limited use or exclusion of the prime's proprietary data, no negotiation is possible as to the data of a sub. Thus, when the prime contract calls for all the data not specifically excluded, the prime is contractually bound to demand all data from his subcontract supplier.

Each of the references cited in this letter is a matter of printed record. The implication that the fault lies with prime contractors who demand more data than is required by the military contracts is likely, therefore, to be generally misleading. The writer has been personally familiar with some instances in which prime contractor personnel have taken and misused supplier data beyond the requirements of the military. In each case where I have been personally involved, the prime contractor management has demonstrated serious concern and has endeavored to make amends. It seems obvious, however, that in an atmosphere in which the military generally demands all data and with unlimited rights, it may be difficult for prime contractor buying personnel to distinguish those few cases in which a subcontract supplier is not subject to the customary military demand.

Respectfully yours,

JOHN MARSCHALK.

# APPENDIX

## APPENDIX No. 1

APRIL 9, 1959.

Memorandum for:
The Assistant Secretary of the Army (Logistics).
The Assistant Secretary of the Navy (Material).
The Assistant Secretry of the Air Force (Materiel).

Subject: MIL–D–70327 drawings, engineering, and associated lists—Approval of

I have this day approved the subject military specification. This specification was developed jointly by industry and military departments after a year of intensive study and negotiation and represents a tremendous advance in the establishment of uniform requirements for the procurement of engineering drawings. This specification is mandatory for use by the military departments in connection with (1) all production contracts, and (2) research and development contracts resulting in a design released for production.

It is important that the investment of both the military departments and industry in this document be conserved by its invocation in every procurement possible. The economies possible from the imposition of a uniform set of requirements on industry in this area are very significant. Effective implementation is essential to achieve these economies. It is recommended that the benefits from the use of this specification be secured in connection with existing contracts where a negotiation of retroactive application of the specification can be economically concluded.

The requirements of the specification are effective with respect to drawings prepared by the military and industry, and its requirements are to be invoked by prime contractors with respect to procurement by them from subcontractors and vendors. Existing specifications, manuals, etc., which contain requirements inconsistent with this specification should be conformed to the requirements of this specification as quickly as possible. The Armed Forces Supply Support Center will provide each military department, under separate cover, a listing of documents so affected. Existing drawings which do not conform to the requirements of this specification should be conformed at the time such drawings are reused.

It is requested that each military department report immediately to the AFSSC any situation in which it is unable to invoke this specification in procurement as required herein. In addition, each military department is requested to carefully follow its experience in the use of this document and report to the custodian of this specification, the Bureau of Ordnance, Navy Department, difficulties and problems connected with its use so that these may be considered.

It is requested that you advise this office that this specification has been implemented in your department in accordance with its effective date. Training aids for the indoctrination of personnel in the use of this document are under development and will be made available as quickly as completed.

PERKINS MCGUIRE,
*Assistant Secretary of Defense (Supply and Logistics).*

APPENDIX No. 2

ENGINEERING DATA REQUIREMENTS FOR USAF MATERIEL AND SERVICES, 1 JUNE 1959

ISSUE I

**This Document Replaces Engineering Data Tables 250, 250A, 251, and all amendments thereto of all dates, the further use of which is unauthorized.**

*1. Scope*

**(*a*) This document establishes the requirements for engineering data and microfilm prepared in accordance with the documents referenced herein, required in connection with the procurement of the materiel called for by the contract to which this document is attached.**

**(*b*) Engineering data provided by the Contractor shall be prepared in accordance with Specification MIL–D–70327, Class 2, and furnished as specified in Figure 1.**

FIGURE 1

| | Required | Remarks |
|---|---|---|
| Complete Set | | |
| Undimensioned Data Type II MIL–D–8510 | | |
| Other than Complete Set | | |

*2. Applicable documents*

**The following specifications of the issue in effect on the date of Invitation for Bid or Request for Proposal form a part of this document and shall be utilized as applicable.**

| | |
|---|---|
| MIL–D–70327 | Drawings Engineering and Associated Lists |
| MIL–I–8500 | Interchangeability and Replacability, Physical; of Component Parts for Aircraft (Including Guided Missiles) |
| MIL–M–8857 | Microfilm of Engineering Drawings and Related Data, Requirements For |

*3. Requirements*

a. Drawings and Lists.—The Contractor shall furnish 35mm microfilm copies of engineering data (including undimensioned data) required to depict the existing configuration(s) and such revisions thereof as may be required throughout the production life of the contract (see paragraph 3a(2)). These engineering data shall be as specified in Figure 1. The Contractor shall not include any contingency in his bid for any revised engineering data resulting from anticipated production changes since the cost thereof is undeterminable. Changes resulting from Engineering Change Proposals will be negotiated either as a part of the engineering change proposal or as otherwise agreed upon.

(1) When contractors have previously supplied microfilm for the item under Specification MIL–M–4488A, only those new and revised data shall be furnished. If microfilm has not previously been supplied, all data shall be microfilmed and furnished.

(2) When a set of Class 1 or Class 2 data have been prepared and accepted by a Department of Defense activity, the Contractor shall advise the procuring activity that such a set of data exists.

b. Vendor Data Requirements.—The prime contractor shall provide in his vendor purchase order(s) or contract(s) a requirement for engineering data and Punched Card Accounting Machine cards. The vendor data requirements shall be for a set of drawings and lists covering each vendor item and such revisions thereof as may be required throughout the production life of the purchase order(s) or contract(s). The vendor shall be required to comply with all requirements specified herein for the submission of data and Punched Card Accounting Machine cards.

c. Unrevised Data.—When revisions are not required to previously furnished engineering data complying with paragraph 1b, a single, up-to-date cover sheet

only of the required list(s) shall be furnished certifying that, "All required engineering data are current as furnished under Contract Number ———."

d. Government Furnished Data.—When a set of engineering data (Class 2) is furnished by the Air Force as a part of the Invitation for Bid or Request for Proposal, the Contractor, when other than the Design Activity, shall prepare and furnish those new or redrawn data which depict all changes made to the set of Design Activity data. Such data shall provide notes citing the manufacturers code and drawing identification number(s) of the superseded data, (e.g., This drawing supersedes Drawing Number ——— manufacturers code ———). This information shall be additionally indicated on applicable associated lists.

e. Tube Bend Data Format.—Tube bend data shall be prepared on alternate "A" size drawings (MIL–STD–3) in accordance with the format of Figure 2. All information including dimensions, angles, radii, and special notes, etc., required for the bending and forming operations shall be included. If a substitute material for a tube is authorized a special note on the drawing shall describe how the tube would be marked to identify the material from which the tube has been made.

f. Data List.—Data lists shall be prepared by each design activity in accordance with MIL–STD–30 and shall be furnished as a portion of the engineering data.

g. Marking of Engineering Data for Interchangeability or Replaceability.—Drawings for component parts of aircraft and guided missiles shall be marked to indicate interchangeability or replaceability status in accordance with requirements of Specification MIL–I–8500. Individual part numbers shall be assigned to identify parts requiring rework such as drilling, trimming, etc. Notes shall indicate that such parts require drilling, trimming, etc., at the time of installation.

h. Microfilm.—All data called for herein shall be furnished on 35-mm. microfilm. Microfilm shall be furnished in accordance with provisions outlined in Specifications MIL–M–8857 except as follows:

(1) Paragraph 3.1.5 shall be deleted.

(2) Paragraph 3.2.4 (Reduction) Table shall be changed to read:

(a) Sizes A thru C—16X.

(b) Sizes D—24X.

(c) Sizes over D—29X.

(3) Reduction Ratio "20X" cited in paragraph 3.3.5.2 shall be changed to "16X."

(4) All references to Specification MIL–D–5028 shall be changed to MIL–D–70327.

i. Punched Card Accounting Machine Cards.—The Contractor shall furnish Punched Card Accounting Machine (PCAM) cards key punched and interpreted in accordance with provisions of Specification MIL–M–8857.

(1) One (1) deck of cards shall be furnished that represents all engineering data required to assemble a complete engineering data package for the item being furnished. There shall be one (1) card for each sheet of data.

(2) One (1) deck of cards shall be furnished with each shipment of film in accordance with paragraph 3.4 of Specification MIL–M–8857.

(3) One (1) deck of cards shall be furnished in accordance with paragraph 3.4.10 of Specification MIL–M–8857 except that these cards shall include both reparable and nonreparable vendor items.

j. Engineering Changes.—After a change has been made in the materiel furnished under the contract to which this document is attached, such change shall (within 30 days) be depicted in the related engineering data.

k. Weight.—Weight shall be specified either in the List of Materiel or on the drawing of all spare parts and spare assemblies. The addition or revision of weight will not be considered as an engineering change.

l. Usage Data.—Usage data shall be specified on all aircraft and missile drawings (including electronic components thereof) in accordance with MIL–STD–3.

m. Alternate Reproduction.—The exclusive use of microfilm and aperture cards is invoked by this document. The satisfactory use of data in this form is governed by the quality product furnished by the Contractor and the availability of sufficient equipment within the Air Force to utilize the microfilm. The procuring agency therefore reserves the right to call for reproducible prints

and or nonreproducibles in paper form in accordance with Specification MIL–D–5480 when the need arises. This action will be by contract amendment and the Contractor shall not include any contingency in his prices for such data.

*4. Quality assurance provisions*

a. The Contractor shall provide and maintain a procedure acceptable to the Government for inspection and quality control of engineering data, including those furnished by his vendors. The procedure shall include a method to provide for and insure that all manufacturing, production, and engineering changes are included in or reflected by all affected engineering data and delivered in accordance with the delivery schedule applicable hereto.

b. The Contractor shall maintain a record, and require his vendors to maintain similar records, of all changes affecting engineering data previously delivered during the production life of the contract to which this document is attached which require revision, including the date such revisions were accomplished and delivered to the Government. These records shall be retained for the production life of the contract, unless otherwise specified by the Contracting Officer.

c. All original drawings, or check prints thereof, shall be inspected by the Contractor for compliance with or conformance to all applicable requirements of the governing documents. Original drawings not conforming to the specified requirements shall be rejected by the Contractor and shall be corrected (reworked) or redrawn, as appropriate, to conform to the requirements prior to submission to the Government for acceptance. The Contractor shall include like provisions in his contract(s) or purchase order(s) for vendor supplied drawings and associated lists.

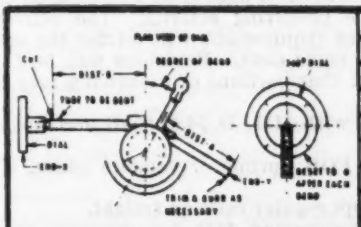
d. The Contractor shall include in his contract(s) or purchase order(s) with his vendors a clause or provision whereunder engineering data supplied by the vendor directly to the Government, with Government inspection and acceptance being performed at the vendor's facilities (such Government inspection and acceptance of vendor supplied engineering data is hereby authorized), shall be inspected by the suppliers for conformance to all applicable requirements of the governing specifications prior to the submittal of the engineering data for Government acceptance. Requirements for records or evidence of such inspection (to be made available to the Government inspector, upon request) shall be included in the Contractor's purchase document(s). Inclusion of these requirements in the purchase document(s) with his vendor(s) shall neither relieve nor release the Contractor from his obligations hereunder to provide for and insure delivery of acceptable vendor data.

e. The complete lot of original drawings or check prints thereof, or a representative sample of all the various types and qualities of data to be microfilmed, shall be submitted to the assigned Government representative servicing the Contractor's facility for evaluation and approval. All changes requested by the Government representative shall be incorporated by the Contractor prior to the microfilm operation. Proof of such compliance shall be furnished by the Contractor upon request of the Government representative. The Contractor shall include like provisions in his contracts or purchase orders for vendor supplied drawings.

f. Government inspection and acceptance of all engineering data supplied in accordance with the contract to which this document is attached shall be performed at the Contractor's/vendor's facility by the Government agency having inspection cognizance over the facility involved. A certificate as required by MIL–M–8857 shall accompany each shipment of microfilm, and shall include thereon a statement certifying that engineering data required by the contract comply with the requirements of MIL–D–70327.

g. When Government inspection and acceptance of vendor's engineering data is to be performed at the vendor's facility, a statement to that effect shall be included in the Contractor's purchase documents.

h. Following award of the contract to which this document is attached, all questions or problems arising in connection with preparation or delivery of engineering data in accordance with the specified requirements shall be presented by the Contractor to the Government agency having inspection cognizance over his facility for resolution or disposition.



| REVISIONS | | | |
|---|---|---|---|
| SYM. | DESCRIPTION | DATE | APPROVAL |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| BEND NO. | DISTANCE FROM Y END | RADIUS INCHES | DEGREE OF BEND | DIAL ROTATION CLOCKWISE REQ |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
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| | TYPE OF ENDS |
|---|---|
| I | FLARE - AND 10061 |
| II | BEAD - AND 10068 |
| III | DOUBLE FLARE AND 10078 |
| IV | SLEEVE |
| V | PLAIN SQUARE |
| VI | ANGLE - 45° |

DISTANCE B FROM LAST BEND TO END

NOTES

TYPE END X | TYPE END Y

TYPE OF FITTING END X

TYPE OF FITTING END Y

| MATERIAL | MATERIAL SPEC | | |
|---|---|---|---|
| | | | |
| TUBE SIZE | WALL THICKNESS | MINIMUM STOCK LENGTH | |
| | | | |
| FINISH SPEC | COLOR CODE | HEAT TREAT | DECAL PT. NO. |
| | | | |

NEXT ASSY | USED ON

APPLICATION

| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTION DEC. ANGLES | DRAFTSMAN | TITLE | CONTRACTOR NAME |
|---|---|---|---|
| | INSPECTED BY | | |
| | APPROVED BY | | |
| | | MFR. CODE | DWG. NO. |
| | | SHEET OF | |

Fig II

MCP 71-77 JUN 69 (Cont'd)

*5. Preparation for delivery*

a. Microfilm and Punched Card Accounting Machine cards shall be prepared and delivered in accordance with Specification MIL–M–8857 and forwarded to Commander, Wright-Patterson Air Force Base, ATTN: EWBFE, Wright-Patterson Air Force Base, Ohio.

b. Undimensioned data shall be prepared for delivery in accordance with Specification MIL–D–8510. Classified undimensioned data shall be prepared for delivery and forwarded as directed by the procuring activity. The activity establishing the Type II undimensioned data requirement will advise the contractor when to start and where to deliver basic data. Revisions will be furnished the same as for microfilm data except that portions of a drawing may be revised, when practical.

c. A shipping list prepared in accordance with MIL–D–5480 shall accompany each shipment of undimensioned data.

d. All engineering data shall be shipped FOB (prime or vendor) plant, via Government Bill of Lading (GBL).

e. All modes of delivery are acceptable except regular railway freight.

f. Packaging, packing, and marking of engineering data for shipment shall conform to the applicable requirements of Specification MIL–D–5480.

*6. Notes*

a. Engineering Data.—This term applies to engineering drawings, supporting standards, specifications, associated lists, and related engineering documents.

b. Headquarters, Air Materiel Command, ATTN: MCSIF, is responsible for the control of this document. All amendments, changes, waivers or deviations from the requirements contained herein shall be directed through the Government agency having procurement cognizance over the contract to which this document is attached to Headquarters, Air Materiel Command, ATTN: MCSIF, for disposition.

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APPENDIX No. 3

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE,
*Washington, D.C., April 22, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Committee on Small Business and Government Procurement, Select Committee on Small Business, House of Representatives.*

DEAR MR. CHAIRMAN: The purpose of this letter is to provide an answer to the statements made by Messrs. Lent, Scott, and Marschalk at the hearings held by your subcommittee on March 29–31, 1960, in criticism of DOD policy on the use and acquisition of data as set forth in section IX, part 2 of the armed services procurement regulation.

Their statements will be considered in the light of certain principles which should be embodied in any regulation pertaining to the use and acquisition of data by the Government. These principles are:

(1) Private development of items useful to the military must receive maximum encouragement;

(2) Generally, the Government should acquire the means to establish competitive procurement but not at the expense of destroying incentive to devote the best private technical resources to defense problems and requirements;

(3) Policy which accommodates (1) and (2) must be clear to industry and to operating personnel of the military departments.

The statements of Messrs. Lent, Scott, and Marschalk have certain points in common, and we shall speak to five of these points.

(1) It is stated that there is a need to redefine the term "proprietary data" (Lent R. 18, Scott R. 217 and 218, Marschalk R. 325). (All references are to page numbers in the transcript record of the hearings.)

The definition of proprietary data, which is stated in ASPR 9–201(b), is as follows:

" 'Proprietary data' means data providing information concerning the details of a contractor's secrets of manufacture, such as may be contained in but not limited to his manufacturing methods or processes, treatment and chemical composition of materials, plant layout and tooling, *to the extent that such in-*

*formation is not disclosed by inspection or analysis of the product itself* and to the extent that the contractor has protected such information from unrestricted use by others."

The italic words convey the "reverse engineering" concept which has been seriously objected to by Messrs. Lent (R. 86), Scott (R. 217), and Marschalk (R. 330). We are convinced that the "reverse engineering" aspect of the definition should be clarified so that Government personnel will not classify data as "nonproprietary" just because the item can be reverse engineered with extensive engineering and financial effort. The cost to the Government of reverse engineering is a clue to the proprietary nature of such data. So is the time such an effort would take.

In short, we recognize that the present definition is in need of change. Accordingly, if we are to retain the concept of "proprietary data," the definition must be sharpened so that it will include any data not readily revealed by the product itself rather than only that data which is incapable of being reverse engineered. It may be noted in passing that while this will require a change in language, it does not require a change in intention. The words "is not disclosed" in the above definition were never intended to describe a process of expensive and detailed reverse engineering. The fact that they have been so interpreted dictates the necessity for a change in definition.

(2) It is asserted that the Government should give industry the protection of drawings and designs (whether or not proprietary) which industry gets when it deals with other industry. (Marschalk R. 324 and 330, Scott R. 217.)

The suggestion above seems to embrace the idea that we would obtain privately developed drawings under an agreement that they will be protected like proprietary data solely because they were privately originated. Further, it is urged that they should be used only for the specified purposes for which they were obtained, such as maintenance and repair and for no other purpose. This would create rights in the contractor against the Government as to the use of drawings which drawings might not, in fact, include any proprietary information as presently defined.

After completion of a full study of our problem (this study is discussed later, herein) it is possible that we may conclude that the suggestion detailed above is the least troublesome resolution of this subject. (See testimony at p. 277 of the transcript record.) At the moment, however, two pertinent and important objections to this proposal occur to us.

The first, and obvious, objection to this proposal, from the Government's standpoint, is that it would put our contracting agencies in the position of having in their files complete descriptions, usually in the form of manufacturing drawings, of items which they must purchase, such descriptions, in many cases, not containing any information which could not readily be copied from the product, with such drawings nevertheless being under contractual protection against use for competitive reprocurement. In some cases the Government's needs can be met by the use of performance specifications not containing any design data. However, where it is necessary for the Government to buy an additional quantity of equipment which is of identical design, the result of this proposal would be that the Government could (i) develop its own drawings from the equipment itself, (ii) purchase the equipment on the basis of samples, or (iii) purchase the equipment from the original supplier on a sole source basis without competition. The alternative in (i) is generally unsatisfactory, as is discussed more fully in the ensuing paragraph, in part, because the Department is not generally, and probably should not be, staffed to prepare drawings based upon products we own, which drawings would merely duplicate drawings containing no proprietary information which are already in our files. This, as a general policy, would obviously be an extravagant usage of the country's engineering resources and would waste the taxpayers' money duplicating available information without giving any useful protection to inventors or innovators. The alternative in (ii) can occasionally be pursued but it is subject to the basic objections that the sample has to be displayed in one or more public places throughout the country, thereby necessitating varying amounts of travel by prospective bidders; the sample cannot be carried off to the engineering departments of individual bidders and disassembled for analysis and measurement which may be necessary; and procurement on such a basis leads to very frequent disputes based on performance variations or deficiencies which occur even though the design is copied. Accordingly we are led directly

to alternative (iii), sole source procurement from the original supplier. Regardless of how this basic proposal is presented or justified, sole source procurement would normally be the inevitable result and is probably the real point of this proposal. The procedure in alternative (iii) is very difficult for those of us who work for the Government to support before the public and the Congress. It is not easy to explain why we should buy, without competition, an item for which we already have full information adequate for competitive procurement when such information is protected only by contract and would otherwise be in the public domain. If this third alternative is the desire of the Congress, a clear statement of this legislative intention would be most helpful.

The second objection to this proposal, which is touched on in the preceding paragraph, stems from the fact that the Government obtains information about products in many ways. We may make a series of contracts for a product and get drawings which are unrestricted under one of them with a restriction under the other. We may buy the product once with a restriction on the drawings with subsequent procurement by sample with drawings furnished without restriction from the second contractor. Or we may, in some cases, reverse engineer a product on which we had obtained drawings subject to restriction. Any of these situations where we should have a perfectly valid right to use the drawings for competitive reprocurement would nevertheless be likely to lead to dispute and litigation. There would always be the suspicion that we had misused the protected drawings and, in some cases, an inference which would be difficult to rebut might arise in litigation. If the information in the drawings cannot readily be ascertained by others from the product itself, as in the case of "proprietary data" under the present definition, it is possible to pinpoint responsibility for the use of drawings. However, where the information is readily evident from an examination of the product, not only will there be disputes over the source of the data used in a subsequent procurement, but also, in very many cases, the firm which initially designed the product will not, in fact, get the protection, in the form of continued sole product procurement, which is actually sought as the end product of this proposal.

(3) It is alleged that specifications (MIL–D–70327) and other subsidiary contract documentation requirement (MCP 71–673, SAR–400, and MCP 71–77) nullify the ASPR data policy. (Scott R. 208–214, Marschalk R. 315–319).

Specification MIL–D–70327 military specification, drawings, engineering, and associated lists (March 16, 1959) covers engineering drawings and associated lists prepared by DOD and by contractors. Its use is mandatory for all military departments. It provides the standards for all engineering drawings received from prime contractors and subcontractors.

This specification calls out the requirements for the various uses for which drawings are bought such as procurement, manufacture, testing, inspection, overhaul, and repair, etc. Paragraph 6.2 requires a statement of the type of drawings and their intended use. Proprietary data is acquired in accordance with the terms of contract or order pursuant to paragraph 3.8. This means that proprietary data will be acquired only in accordance with the data policy and clauses set forth in ASPR section IX, part 2.

MCP 71–673 is a spare parts provisioning document for USAF aeronautical and associated equipment contracts. This document prescribes the terms and procedures for the selection and furnishing of spare parts under a given contract.

MCP 71–77 (June 1959) entitled "Engineering Data Requirements for USAF Materiel and Services," establishes Air Force requirements for engineering data and microfilm.

SAR–400 (April 24, 1958) entitled "Special Aeronautical Requirements, Supply Item Provisioning Document for U.S. Navy Production Contracts" is a document prescribing terms and procedures for selection of supply items and technical data related thereto in Navy contracts using the document.

To have any significance as a contractual requirement for furnishing data, these documents must first be incorporated by reference in a contract. When this is done, however, this requirement is subject to all of the terms of the contract. In consequence, the following results flow. First, if the documents are incorporated in a research and development contract, as described in ASPR 9–202.1(c), that contract would contain (1) the basic data clause, ASPR 9–203.1, and (2) the addition to the basic data clause, paragraph (i), in ASPR 9–203.4. Under paragraph (f) of the basic data clause the Government would receive unlimited rights to use all subject data as defined in paragraph (a) of the

clause *which is delivered under the contract.* Subject data may therefore include proprietary data; however, paragraph (i) eliminates the need for furnishing data, whether proprietary or not, if it pertains to a standard commercial item or service offered for sale or sold commecially by any supplier, provided the item is identified as to source and its characteristics are furnished.

Furthermore, paragraph (i) of the data clause specifically excuses the prime contractor from furnishing proprietary data for other items developed at private expense and previously sold or offered for sale, or minor modifications thereof, which are incorporated as components in the product. This is applicable to subcontractors as well as to primes. Therefore, this clause specifically overrides the data requirements of MIL–D–70327, MCP 71–673, MCP 71–77, and SAR–400 as to such components. The terms of the contract agreement must be read as a whole contract, not as separate requirements. There is no contractual obligation on the prime contractor to obtain or furnish such excluded data.

With respect to a contract for supplies, not having research or development as one of its principal purposes, the (i) paragraph in ASPR 9–203.4 is not used. Instead the (i) paragraph in ASPR 9–203.2 is required. This is the "fail-safe" clause and was referred to in the testimony by that name. The "fail-safe" clause provides that, notwithstanding any tables or specifications which may be included in the contract, proprietary data need not be furnished unless it is suitably identified in the schedule of the contract as being required. Suitable identification of proprietary data is not accomplished by class designation, nor is it accomplished by the use of MIL–D–70327, MCP 71–673, MCP 71–77, nor SAR–400, none of which identify specific proprietary data and none of which is included in the schedule.

If the above is properly understood, it is hard to see how these subsidiary contract documents can be construed contrary to the express provisions of the required data clauses of the contract. It is up to informed Government and contractor personnel to see that this kind of contract administration does not occur.

For the benefit of vendors it also might be well to require primes in their purchase orders to state their contractual data obligations. This brings us to the point 4 of the argument.

> (4) It is alleged that vendors are being forced by prime contractors to give up privately developed data so that primes can satisfy what they conceive to be their obligation to the Government. (Scott R. 209 and 216, Marschalk R. 317.)

Primes are under no obligation to deliver to the Government data which has been expressly excluded by the data clauses in their contracts. The fact that in a research and development contract, data is acquired subject to unlimited rights means only that unlimited rights apply to the data which is contractually required. There can be no limited rights in such a contract; therefore, the purpose of the policy is served by exclusion of certain data from delivery requirements.

The flow-down of unlimited rights in data from the prime to vendors relates only to that data which is required by contract. That which is obtained under research and development contracts is with unlimited rights but the data clause has designated which data are not required. Obviously we do not get unlimited rights in data which is not required to be furnished at all. There is nothing to attach rights to. This must be understood by primes, their vendors and by Government personnel.

A fifth contention is as follows:

> (5) It is alleged that industry is forced to have two sets by drawings; one fully suitable for manufacture and the other having "proprietary data" omitted or blocked out of the drawing. (Lent R. 18, Scott R. 222, Marschalk R. 321 and 324–325.)

As has been explained above, the data policy applicable to supply contracts will frequently not provide information suitable for complete manufacture by the Government nor for reprocurement from other firms. This is deliberately so, and results from the exclusion of "proprietary data." Accordingly, it was concluded, when part 2 of section IX was drafted, that, if we do not want drawings for manufacture by the Government nor for reprocurement from others, there should be very little demand (under supply contracts) for manufacturing drawings for any purpose. Hence, it was stated in ASPR 9–202.1 that "It is the policy of the Department of Defense * * * to limit demands for data to that which

is essential for Government purposes. The activity responsible for initiating a purchase request * * * will carefully determine the use contemplated for the data to be acquired and will specify only such data as is determined to be necessary to satisfy such use * * *." This policy left us free to buy maintenance manuals, operational instructions, cataloging descriptions, and the like but would not normally have required manufacturing drawings. Under such circumstances there would have been no question of a second set of drawings.

It is clear from your hearings, that many procuring agencies are still calling for manufacturing drawings in supply contracts. We do not feel that either we or our friends in industry have at hand adequate facts on which to appraise the validity of these Government demands for manufacturing drawings.

In order to properly assess this question we are proposing to undertake an extensive survey of a variety of activities for which such a need for manufacing drawings has been claimed. These activities will include some concerned with maintenance, cataloging, supply management, inspection, provisioning, and the like. It is hoped that this survey will point the way for a more positive statement of our policy with respect to what types of data will be purchased under various circumstances and, hence, that it may eliminate the problem of two set of manufacturing drawings by requiring either one complete set or no manufacturing drawings at all.

We sincerely hope this supplemental material will be of assistance to you in your understanding and consideration of this rather difficult problem. Be assured that we are intensively studying the problem because it is to our great interest to have data policy which fairminded people will consider to be equitable.

Sincerely yours,

G. C. BANNERMAN,
*Director for Procurement Policy.*

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APPENDIX No. 4

HEADQUARTERS, DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
*Washington, D.C., April 19, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Subcommittee No. 2, Small Business Committee,*
*House of Representatives.*

DEAR CONGRESSMAN MULTER: In accordance with the request of Mr. Maness, counsel for your committee, an investigation has been made of the Corps of Engineers program and activity charged with development of lightweight air-conditioning equipment. This investigation was made with particular emphasis toward developing the circumstances pertaining to discussions between engineering personnel of the Engineer Research and Development Laboratories at Fort Belvoir and representatives of the Task Corp., concerning which Mr. Elmer P. Ward, president of Task Corp., testified before your committee on March 30, 1960.

Mr. Ward's testimony concerned, in the main, impressions gained by a Mr. Richard N. Rigney, an engineer for Task Corp., of procurement policies and practices relating to development of military equipment concerning which there appears relevant commercial developments involving proprietary designs.

At the outset it is considered significant to point out that Mr. Rigney's contact with our laboratories at Fort Belvoir was most recent (Feb. 15–17, 1960). Further, the meetings with him appear from our investigation to have been quite preliminary in nature, informal and not significantly inclusive to represent in any event a comprehensive picture of the policy at the laboratories and in the Corps of Engineers regarding considerations relating to proprietary design and data.

Mr. Rigney's contact with the laboratories appears to have been limited to rather informal preliminary discussions with engineering personnel. Investigation at the procurement and legal offices at the laboratories has failed to reveal any knowledge or record of discussions among procurement or legal personnel and Mr. Rigney. Furthermore, those offices have no record of visits, conversations, or correspondence with either Mr. Rigney, or with Task Corp. No requests have been received from that company to place its name on the bidders list.

The Procurement Office of the Army Engineer Center and Fort Belvoir is responsible for all contracting necessary to the mission of the Engineer Research and Development Laboratories. This does not include quantity procurement of

items under development by the laboratories, which normally is accomplished by other procurement activities of the Corps of Engineers. The procurement office is required and does adhere to the principles enunciated in the armed services procurement regulations and the Army procurement procedure with reference to research and development contracts for the laboratories.

In accordance with general military policy we try to establish, if possible, two or more sources of supply to meet national emergency requirements. If a needed military item is protected by patents, it is endeavored to get a nonexclusive, royalty-free license if the contractor is willing to give the Government such a license. The consideration for such a license has its foundation in numerous similar grants by others in the interest of the Government and the national defense effort. If the contractor is unwilling to give the Government such a license, it is then suggested that the contractor license the Government on a royalty basis or arrange to license other companies so that two or three sources of supply will be available to the Government. It is also endeavored to use commercially available products as much as possible so as to avoid unnecessary patent, proprietary data or other complicating questions.

Of particular note in regard to the instant matter are recent determinations in this office regarding procurement policy relating to the procurement of air-conditioning equipment. These determinations significantly stemmed from consideration of the procurement of lightweight air-conditioning equipment.

A procurement policy meeting was held on January 28, 1960, at the Office of the Chief of Engineers. In attendance were research and development and procurement personnel of this office and the Engineer Research and Development Laboratories (ERDL). In pertinent part the meeting touched on procurement of 38,000 B.t.u./H lightweight air conditioners. The specific point under discussion was "Specifications Including Detail Drawings Versus Performance Specifications Only." As a result of this meeting it was agreed that "For all future air-conditioning procurement, performance-type documents will be used. ERDL will include information regarding necessary tests to insure that the item will be suitable to meet user requirements. Drawings will contain only minimum essential details necessary for physical dimensions, mounting, configuration, and layout." It is noted that this policy determination antedates Task Corp. contacts with ERDL. Further, the determination appears to substantially rebut Mr. Rigney's impression of Corps of Engineers policy as set out in the upper portion of page 4 of the transcript of Mr. Ward's testimony before your committee, and accord the statement of Task Corp. in the lower portion of page 4 as to a desirable policy position.

On February 29, 1960, the policy position formulated and made effective at the January 28, 1960, meeting was confirmed by an official communication to the Engineer Research and Development Laboratories by the Chief, Research and Development Division, Office of the Chief of Engineers.

The Engineer Research and Development Laboratories has furnished the following information regarding contacts between personnel of the laboratories and representatives of Task Corp.:

(*a*) Mr. Robert L. Little of the Heating and Air-Conditioning Section, Special Equipment Branch, Civil Engineering Department, while visiting the Ellis & Watts Products, Inc., in Cincinnati, Ohio, on another Government contract matter, met Mr. Rigney and became aware of their small lightweight compressors. Recognizing the possible application of such an item to the laboratories mission, he asked Mr. Rigney if he expected to be in Washington area any time soon. Upon being advised in the affirmative, he suggested that Mr. Rigney visit the laboratories and show his line of equipment to Mr. Mehalick, who is the engineer responsible for lightweight air conditioners. He also advised Mr. Rigney to telephone in advance so that Mr. Mehalick would be sure to be present to talk with him. Upon Mr. Little's return to Fort Belvoir, he informed Messrs. Klisch and Mehalick of the possible visit.

(*b*) Mr. Rigney arrived at these laboratories on Monday, February 15, 1960, apparently without any advance telephone call. He introduced himself to Mr. Klisch. After a few minutes' conversation, Mr. Klisch brought him into Mr. Mehalick's office and introduced him. Mr. Klisch later left the room.

(*c*) There are enclosed copies of the statements of the named engineers who participated in these conferences.

The Engineer Research and Development Laboratories has additionally furnished the following specific comment regarding certain statements made in Mr. Ward's testimony:

(*a*) As to allegations on page 2 of the extract of transcript, the sentence reading, "They would require the contractor to furnish all drawings, data, and processing information necessary to manufacture the unit and to surrender proprietary rights," raises the question as to the meaning of the word "surrender." These laboratories in entering into research and development contracts calling for the furnishing of a final engineering or production model usually require the contractor to submit a complete set of as-built drawings, together with material specifications. If the contractor in fulfilling this contract requirement must disclose information that he considers proprietary, he is informed of this requirement before the contract is entered into and his contract price includes reimburesement for this disclosure. There is no compulsion on the contractor to enter the contract and the disclosure of proprietary information is entirely voluntary on his part.

(*b*) As to allegations on page 3 of the extract of transcript, reading "that it was the general policy of ERDL not to be tied to a single source supplier with a proprietary product and that they prevented this by issuing a development contract with full rights to the Government." This statement is in accord with a basic policy of the Department of Defense to obtain supplies on a competitive basis in as many instances as possible, particularly in the development of any military items. It is not equitable that Government funds be used to develop a specific military item that can be produced only from a sole source. This policy is implemented by ASPR section 9–202 and APP 9–202.1c(3).

(*c*) As to allegations on page 3 of the extract of transcript, "were well acquainted with our problems in surrendering proprietary rights, but felt there was not anything they could do." This statement evidently refers to a normal problem of a contractor who has proprietary information relating to a product that might have a military application and the hesitancy of the Government in conducting research and further development of such a product for military application without obtaining full production rights as a result of any such Governument sponsored and paid development.

The Corps of Engineers is presently considering entering into negotiations for and R. & D. contract for the design, development, fabrication and testing of a family of seven miniaturized air conditioner units ranging in capacity from 6,000 to 60,000 B.t.u. per hour. The aim of such a contract would be to develop criteria to implement the objectives set forth at the policy meeting of January 28, 1960, as confirmed in the letter of February 29, 1960, mentioned above.

One final point is believed important to note. In the attached prepared statement of Mr. Robert L. Little of the laboratories it is indicated that Mr. Rigney asked how to get his company's name on the laboratories bidders' list. He was told how to submit application to the contracting officer and indicated his company would probably make a submittal. To this date there is no indication in our records that Task Corp. made any followup in this regard. Accordingly, the laboratories have had no real opportunity to properly evaluate Task Corp.'s item or capabilities. On the other hand, there are other companies known by the laboratories to have capabilities in this area.

If negotiations for an R. & D. contract are commenced Task Corp., if interested, will be given every opportunity to qualify for participation in this development.

Sincerely yours,

S. R. HANMER,
*Brigadier General, USA,*
*Deputy Chief of Engineers for Military Operations.*

4 enclosures:

1. Statement of Mr. Little.
2. Statement of Mr. Klisch.
3. Statement of Mr. Edelman.
4. Statement of Mr. Mehalick.

[Enclosure No. 1]

Subject: Investigation of Department of Defense data policy, part 2, section IX, ASPR, Subcommittee No. 2, House Small Business Committee.

My first contact with Task Corp. was February 8, 1960, when I met Mr. Rigney while visiting Ellis & Watts Products, Inc., in Cincinnati, Ohio. My purpose in Cincinnati was to witness tests on a 9,000 B.t.u. per hour air conditioner being developed by Ellis & Watts Products, Inc., under contract DA–44–009 ENG 3320. Mr. Rigney was in Cincinnati to deliver a small lightweight compressor for

another Ellis & Watts development contract. Upon viewing the Task compressor, I introduced myself to Mr. Rigney and expressed an interest in his lightweight line of compressors. Mr. Rigney stated that he would be in the Washington, D.C., area later that week, and I in turn suggested that he visit our laboratories and talk with Mr. Mehalick about our proposed line of lightweight air conditioners. Since Mr. Rigney was to be in the local area for 3 or 4 days, I suggested that he call our office ahead of time to be sure Mr. Mehalick would be in when arrived. Upon my return to Fort Belvoir, I alerted Messrs. Klisch and Mehalick that I had met Mr. Rigney and that he would probably visit us later in the week.

The next I heard or saw of Mr. Rigney was on Monday, February 15, 1960, when he walked into our adjoining office and introduced himself to Mr. Klisch. After talking with Mr. Rigney a few minutes, Mr. Klisch brought him to our office and introduced him to Mr. Mehalick. Since I had met Mr. Rigney in Cincinnati, I sat in on most of the discussion between he and Mr. Mehalick. To the best of my recall, the following is a recap of the discussion:

Mr. Mehalick outlined our proposed line of lightweight air conditioners and Messrs. Rigney and Mehalick discussed some of the problems involved in the design and development of such equipment. During the discussion of Mr. Rigney's line of Task compressors, Mr. Mehalick asked if his company would be interested in selling the rights to the Government for purposes of military production. Mr. Rigney stated that he did not know but he assumed his company would be willing to sell these rights. Mr. Rigney later asked how to get the company name on our bidders' list. He was told to send the contracting officer a letter stating his business, his desire to get on the bidders' list, and all factual information pertaining to his company and its relation to heating and air conditioning equipment. Mr. Mehalick suggested that Task Corp. submit proposals outlining what limits they could approach in developing compressors or complete air conditioners in the size ranges of our proposed family of lightweight air conditioners. Mr. Rigney stated he thought the proposals would be a sound approach to the problem and that his company would probably submit them. Mr. Rigney stated that he would like to return the next day to show us a small condensing unit they were showing as a sample of their work. Mr. Rigney did not get back the next day, but did get here the following day, February 17, 1960. After viewing the condensing unit, Mr. Mehalick and Mr. Rigney held another discussion. I did not participate in this second discussion at all.

ROBERT L. LITTLE,
*Heating and Air Conditioning Section, Special Equipment Branch, Civil Engineering Department.*

[Enclosure No. 2]

APRIL 11, 1960.

Subject: Investigation of Department of Defense data policy, part 2, section IX, ASPR, Subcommittee No. 2, House Small Business Committee.

To the best of my recollection, Mr. Rigney, representing the Task Corp., visited the office of the heating and air-conditioning section, ERDL, Fort Belvoir, Va. some time during last February. I talked with Mr. Rigney for a few minutes to determine his interests. Then I informed him that we at ERDL were interested in lightweight and miniaturized air conditioners. Since Mr. Rigney was primarily interested in refrigeration compressors. I introduced him to our Mr. Mehalick who has cognizance of the compressor development program. At that point, I left and returned to my other duties.

JOHN A. KLISCH,
*Chief, Heating and Air-Conditioning Section, Special Equipment Branch.*

[Enclosure No. 3]

APRIL 11, 1960.

Subject: Investigation of Department of Defense data policy, part 2, section IX, ASPR, Subcommittee No. 2, House Small Business Committee.

To the best of my recall, I met Mr. Rigney of Task Corp. some time during February in the air-conditioning section office at ERDL, Fort Belvoir, Va. At the time, Mr. Rigney was waiting to see Mr. Mehalick who was busy at the time. Mr. Rigney had a condensing unit in a holder. As a matter of courtesy, I intro-

duced myself to Mr. Rigney and we discussed the technical aspects of the Task condensing unit. I do not recall any discussion concerning procurement and proprietary items.

CHARLES A. EDELMAN,
*Senior Project Engineer, Heating and Air Conditioning Section, Special Equipment Branch.*

[Enclosure No. 4]

APRIL 13, 1960.

Subject: Investigation of Department of Defense data policy, part 2, section IX, ASPR Subcommittee No. 2, House Small Business Committee.

Mr. Rigney of Task Corp. visited me on February 15 and again on the 17th. I was away at a meeting most all the day of the 16th.

Our discussion was of the same nature that I have with many potential development sources of air-conditioning equipment for the Government. Since this was in no way an unusual conversation, I have had no particular reason to make special note of what was said. My purpose in talking with him was to see what his company had to offer in the way of services and capabilities, to outline our general program to him and also to extend the same courtesy I extend to all salesmen who call. For these reasons, I cannot recall in detail our exact discussions.

At no time in our discussion do I recall Mr. Rigney appearing disturbed with anything I said or do I recall him voicing any objections.

I frequently use the word "we" to mean the Government and in our discussion this may have been interpreted to mean ERDL would purchase production quantities. I did indicate that under our development contracts, we ask for complete production drawings. I don't believe I used the word "surrender" in our discussions.

I did say that we avoid proprietary items when possible for the reasons Mr. Rigney pointed out. I did indicate that we attempt to have more than one source of supply in our designs.

I do recall asking Mr. Rigney certain questions concerning their capabilities in a few technical areas. Some of these he did not have immediate answers to but said he would check on these and let us know. As yet he has not been back with this information. I did ask in a casual way if his company would be willing to sell to the Government any proprietary rights they might have if we entered into development work with them.

I don't recall in which of our two meetings the various topics were discussed but do remember that we said goodby in an amiable and friendly atmosphere on both occasions.

J. R. MEHALICK,
*Heating and Air Conditioning Section, Special Equipment Branch.*

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APPENDIX No. 5

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
OFFICE OF LEGISLATIVE LIAISON,
*Washington, D.C., April 27, 1960.*

HON. ABRAHAM J. MULTER,
*Chairman, Subcommittee No. 2, Committee on Small Business, U.S. House of Representatives, Washington, D.C.*

MY DEAR MR. CHAIRMAN: In accordance with the request of your counsel for Navy comments on statements of industry witnesses testifying at your hearings on proprietary rights and data, the enclosed comments are furnished.

If I can be of further assistance, please feel free to call on me.

Sincerely yours,

T. P. SMITH, Jr.,
*Captain, U.S.N., Deputy Chief of Legislative Affairs (Acting).*

Enclosures:

(1) Statement of Bureau of Naval Weapons before the Subcommittee on Small Business and Government Procurement.

(2) Navy comments bearing on case II of testimony given by Task Corp., Anaheim, Calif.

(3) Bureau of Ships comments on testimony given by Endevco Corp., Pasadena, Calif.

[Enclosure No. 1]

STATEMENT OF THE BUREAU OF NAVAL WEAPONS BEFORE THE SUBCOMMITTEE ON SMALL BUSINESS AND GOVERNMENT PROCUREMENT, SELECT COMMITTEE ON SMALL BUSINESS

Mr. Chairman and members of the Committee, the purpose of this statement is to present the comments of the Bureau of Naval Weapons with respect to case I of the testimony given to you by Mr. Elmer F. Ward, president, Task Corp., Anaheim, Calif.

This statement first sets forth the problem presented to the Bureau and its resolution of the matter. Secondly, there is set forth a brief chronological statement of the facts antecedent to the presentation of the problem to the Bureau. And lastly, this statement treats the questions presented by Mr. Ward to the committee. The conclusions of the Bureau in this matter are:

(1) In a rapidly moving missile program, there are situations when the real or apparent needs of the Government for data conflict with the desires of individual lower tier subcontractors to withhold the data as proprietary. The only practical way to resolve these problems with due regard for the rights and interests of each party is by negotiation such as conducted in the present instance.

(2) That Task Corp. was represented by Vickers, Inc., in the present case made no real difference to the resolution of the problem as the Bureau views it. Reasonable criticism of procurement practices by the Navy's prime contractors may always be submitted for consideration by the Navy, and we would have welcomed Task's inquiries on this matter.

(3) The length of time a dispute takes to be resolved will depend in each instance upon the issues, the number of parties involved, and the vigor with which each party acts. In view of the circumstances here present the Bureau at this time is without sufficient knowledge to agree with Mr. Ward's implication that the time was unreasonable.

THE PROBLEM PRESENTED TO THE BUREAU OF NAVAL WEAPONS BY LOCKHEED

On February 10, 1960, a Navy prime contractor, Lockheed Aircraft Corp., in a conference held in the Bureau of Naval Weapons advised the cognizant Bureau of Naval Weapons contracting officer that it had been negotiating with Vickers Inc., Detroit, Mich., for the procurement of unitized hydraulic system pump motor assemblies. Such "pumps" were to be components of the Polaris missile system and to be manufactured in accordance with Government specifications. The proposed contracts between Lockheed and Vickers also included a requirement for a detailed design disclosure by the subcontractor. This requirement was proposed in the agreement between Lockheed and Vickers because of the former's belief that its contractual commitments to the Government required it to obtain unlimited rights to the data.

Vickers, on the other hand, felt it was inequitable and improper for Lockheed and the Government to insist on a complete design disclosure with no limitations on the right of the Government to make use of the data.

Lockheed presented this problem to the contracting officer and to technical and legal personnel. Based upon existing program requirements then known, it was determined that the proprietary data was needed for inspection, maintenance, and repair purposes and not manufacturing purposes. As a result, it was agreed that Lockheed could procure the proprietary data for such limited use. At no time were any facts presented to the contracting officer of a complaint by a lower tier subcontractor such as Task Corp.

*Chronological statement*

In May of 1959, Lockheed Aircraft Corp. was awarded a letter of intent, NOrd 18785, in anticipation of a cost-plus-fixed-fee contract for the production of Polaris missiles. This contract was for followon procurement of missiles for which the research and development work was performed by Lockheed under another Bureau of Weapons contract (NOrd 17017). The letter contract contained the "Armed Services Procurement Regulations" data provisions 9–203.1 and 9–203.2. The applicable schedule called for drawings of the missiles and any proprietary data arising out of direct performance of the contract.

Lockheed, in compliance with its understanding of its contractual obligations, attempted to obtain from Vickers, Inc., unlimited rights in detailed drawings of a pump motor unit asserted by Vickers to be proprietary. Attempts to settle the question locally by negotiation and finally by consultation with BUWEPSREP, Sunnyvale, were not successful, and the question was presented to the Special Projects Office on February 10 for resolution. A conference was held to examine Vickers' assertion in the light of then known program requirements, and Lockheed was instructed to accept limited rights in the disputed drawings.

PROBLEMS PRESENTED BY TASK CORP.

Although Task Corp.'s rights were not violated, two questions are believed raised by Mr. Ward's complaint. First, it was contended that if an indifferent subcontractor instead of Vickers had been involved, all Task Corp.'s efforts to protect its proprietary position would have been fruitless. This question is hypothetical in nature and therefore difficult to directly answer without speculation.

In the present case no representation of the concern of Task Corp. was made to the cognizant contracting officer. The problem was presented and resolved as a dispute between a prime contractor (Lockheed) and a subcontractor (Vickers) over the acquisition and use of proprietary data. We wish to stress that the result would have been the same whether the complaining party was Vickers or some other business firm. The Navy's offices are always available to a subcontractor in order to discuss any reasonable criticism of procurement practices by our prime contractors and there is no known reason why Task's particular complaint would not have been entertained by the contracting officer without Vickers had the complaint been presented.

The second question presented by Mr. Ward is framed from his assertion that there never should have been a necessity for negotiation over the furnishing of detailed drawings. To examine this proposition the contracting environment is relevent. The Polaris effort is conducted on a highly expedited time schedule. So rapid is the progress of the program that research and development is frequently conducted concurrently with production of the item being developed. A closer cooperation and more frequent negotiations by the parties are therefore required to administer the Polaris program than the usual research-production effort. Clearly, it is difficult, if not impossible to specify with particularity ultimate Government data requirements when development of a complicated end item is still in progress.

The instant contract was a letter of intent for follow on procurement of an item developed under a still active research contract. Ultimate data requirements were not firm at the initial stages of negotiation, as is frequently true where speed is vital and this type contract is employed. Such a contract inherently requires further negotiations prior to conversion to a definitive contract and must be contemplated by the parties from the outset.

Viewed against the background of the facts known by Lockheed in January 1960, whether an attempt to get unlimited data in Vicker's proprietary drawings was improper is problematical. Ultimate Navy requirements were not clear and in view of its interpretation of its contractual requirements, Lockheed's proposal to Vickers is not considered unreasonable. That Vickers and Task, in their view of the facts, resisted Lockheed is also understandable.

Under existing regulations and all the circumstances affecting the procurement of complex items, it is submitted that only by negotiations can these problems be amicably settled as was done in this situation.

Although not directly posed as a question to the committee by Mr. Ward, it is plain that he felt that approximately 30 days was an unreasonable time for settling the dispute between Lockheed and his corporation. Considering that two large corporations and a Bureau field activity were involved in the negotia-

tions before the dispute was brought to cognizant Bureau authority for resolution, the Bureau is not inclined to concur in his conclusion. The problem reached the cognizant Bureau of Naval Weapons contracting officer on February 10 and was resolved that same day. At that time it was not appreciated that Task Corp. was ever involved.

The Bureau does not recognize any callous disregard of the rights of a small business concern in the situation under discussion. Nonetheless, we wish to assure Mr. Ward and the committee that complaints of this nature cause us real concern and we are anxious to have them brought to our attention for investigation and remedial action if indicated. The Bureau is grateful to Mr. Ward for his observations and comments and has initiated action within its own organization to insure that any delay of problems of this nature will not occur inhouse before being presented to responsible authority for an equitable adjustment of the interests of all concerned.

[Enclosure No. 2]

NAVY COMMENTS BEARING ON CASE II OF TESTIMONY GIVEN BY TASK CORP., ANAHEIM, CALIF.

Case II, presented by the Task Corp. of Anaheim, Calif., involved the purchase of an "internal balance for wind tunnel models" by the University of Southern California (Engineering Center, Aeronautic Laboratory Department). Mr. Ward, president of Task Corp., alleged that in the procurement of this internal balance the Task Corp. was simply "ignored with respect to our patent position," and that the drawings and instructions accompanying the engineering center's request for quotation depicted designs based on information previously furnished to the center by Task Corp.

The engineering center, aeronautic laboratory department, is owned by the Navy but operated by the University of Southern California for the benefit of Department of Defense agencies under Navy contract N 123(61756)6637A. The request for quotation, mentioned in Mr. Ward's testimony, was issued by the University of Southern California. Quotations were solicited for an internal balance for use at the wind tunnel forming a part of that facility. Task Corp., as well as other firms, responded. In its response, Task Corp. stated that they held U.S. Patent No. 2,796,503 and a pending application covering the item to be procured and that, although they had no intention of preventing the manufacture and use of these instruments, they would request the payment of a 10-percent royalty based upon the Task bid price if not awarded the contract. The Task Corp. was not the lowest offeror, its offer being 25 percent higher than the firm to whom the award was made.

During the interval between the issuance of the request for quotation and the awarding of the contract, only Patent No. 2,796,503 was in existence. The University of Southern California in consultation with Government patent counsel at the nearby Naval Air Missile Test Center determined that the item to be supplied by the lowest offeror would not have the features covered by the Task Patent No. 2,796,503. No determination could be made with respect to the pending patent application for the reason that pending patent applications are preserved in secrecy by the U.S. Patent Office and are not available to the procuring activity for consideration with respect to a pending procurement, and even if made available by the Task Corp., there is no assurance that the patent application would issue as a patent in the form in which it was presented to the procuring activity. The lowest offeror performed in accordance with the requirements contained in the request for quotation and furnished an internal balance which did not conflict with Task Patent No. 2,796,503.

Mr. Ward of Task Corp. in his testimony did not make any specific reference to the misuse of drawings, but did refer to "designs produced by the engineering center, to the same requirements as the previous correspondence, and incorporating patentable features of Task designs."

The "same requirements" of the phrase quoted above apparently refers to the functional characteristics of a desired instrument. In the purchase of an item by competitive procurement, it is customary to procure on the basis of design requirements or performance characteristics because it is in this manner that more than one manufacturer can be solicited to supply an instrument of his own design as long as the instrument meets the design requirements or performance

characteristics set out in the request for quotation. In this respect, the University of Southern California was following the usual practice involved in competitive procurement.

[Enclosure No. 3]

BUREAU OF SHIPS COMMENTS ON TESTIMONY GIVEN BY ENDEVCO CORP., PASADENA, CALIF.

Mr. H. Dudley Wright, president, Endevco Corp., Pasadena, Calif., objected to the award of a Navy research and development contract for development of an accelerometer to a firm other than his own, and stated that the Bureau of Ships did not use the best know-how and technology available because it required prospective contractors to furnish company confidential and proprietary information.

In 1958 the Bureau of Ships invited several firms to submit proposals for the development of a 1,000° F. accelerometer. The primary requirement in the specification for the accelerometer was that it be capable of operating in a temperature range up to 1,000° F. This requirement was not modified at any time, either before or after award of the contract. All firms solicited were manufacturers of accelerometers with the exception of one company that had just announced prior to the solicitation that it had developed a new high-temperature (in excess of 1,000° F.) piezo-electric material. Piezo-electric material is an essential component of accelerometers. However, this firm submitted no proposal, and further investigation indicated that its material was not suitable for the application desired.

A contract NObsr–72822, was awarded on June 24, 1958, to Kearfott Co., Inc. Kearfott proposed to use quartz as a transducer element. This material was known to operate, as a result of tests, at 752° F. in accelerometer applications. Kearfott proposed to develop an accelerometer that would meet the requirements of the specification including the 1,000° F. temperature.

Endevco Corp.'s proposal was not accepted for the following reasons:

(*a*) No test or performance data was made available to the Navy which would indicate that Endevco's material was capable of operation above 600° F.

(*b*) Endevco's development was to be based on a determination of the capabilities of its own material and the establishment of the requirements for the accelerometer based on these capabilities.

(*c*) Endevco was not willing to furnish as part of a contract requirement, data which might be developed under the contract and which would be necessary for reproduction or manufacture of the equipment that was to be developed. In other words, Endevco would retain the data as proprietary information, with the result that the end product would be a proprietary item with a single-source supply. One of the principal purposes of research and development contracts is to provide the Government, for the price of the work, all data resulting directly from the performance of the contract, whether or not it would otherwise be proprietary data. The Government pays for the entire development of the product and is, therefore, entitled to the developed data as well as the product. Thus, competition can be sought by the Government in subsequent production procurements of the equipment developed.

The contract with Kearfott Co. was terminated on October 23, 1959, for the convenience of the Government because the weapon system for which the accelerometer was primarily being developed was canceled and because existing materials proved unsuitable for 1,000° F. operation in the specific accelerometer application.

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NAVY COMMENTS ON STATEMENT MADE BY MR. MARSCHALK BEFORE HOUSE SUBCOMMITTEE NO. 2 ON SMALL BUSINESS AND GOVERNMENT PROCUREMENT ON MARCH 31, 1960

Mr. Marschalk cited several documents used by the military departments, including SAR–400, "Special Aeronautical Requirements, Supply Item Provisioning Document for U.S. Navy Production Contracts," which allegedly refute statements made during the hearings that "proprietary data is not really required of small companies acting as subcontractors."

SAR–400 calls for prime contractors to obtain from vendors "(1) end item drawings, (2) parts breakdown with complete set of assembly and detail manu-

facturing drawings, and (3) lists of special, general, and standard support equipment along with detail drawings, engineering sketches or layouts for such equipment." Read alone, SAR–400 appears to require prime contractors to obtain and furnish vendor proprietary data. However, this document cannot be read alone. It is incorporated in the basic supply contract by reference and such contract contains Armed Service Procurement Regulation clause 9–203.2 which provides in effect that, regardless of what may be called for by specifications or other documents incorporated in the contract by reference, the contractor is not required to obtain or furnish proprietary data, unless it is specifically called for in the contract schedule. Thus, for a contractor to be bound to obtain vendor proprietary data, SAR–400 must be implemented by a schedule provision specifically identifying the proprietary data desired.

Mr. Marschalk also called to the subcommittee's attention certain statements concerning military specification MIL–D–70327 made by Mr. James H. Mars, a representative of the Bureau of Naval Weapons, at a meeting held in Pittsfield, Mass., on July 14, 1959.

The statements attributed to Mr. Mars are correct. Taken out of context, they may appear to impose unfair burdens on contractors. In practice, however, they are fair and equitable to both Government and contractor.

MIL–D–70327 requires a prime contractor to obtain drawings from vendors. As with SAR–400, this specification is subordinate to contract provisions required by ASPR. In the case of contracts for experimental, developmental or research work, these provisions specifically exempt contractors from furnishing data on standard commercial items and those developed at private expense and sold or offered for sale prior to the contractor's entering into the contract. In the case of supply contracts, the provisions require specific identification in the contract in order for the contractor to be bound to furnish proprietary data.

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APPENDIX NO. 6

DEPARTMENT OF THE AIR FORCE,
HEADQUARTERS, U.S. AIR FORCE,
*Washington, D.C., May 3, 1960.*

Reply to attention of: AFMPP–PR.
Subject: Hearings before Subcommittee No. 2 (Multer) on Small Business and Government Procurement Concerning Proprietary Rights and Data.
To: SAFLL (Major Boland).

1. The subcommittee held hearings on March 29, 30, and 31, 1960, on the above subject.

2. The Department of Defense has already filed with the committee its position on the general complaints of the witnesses concerning policy and procedures relating to the acquisition of data. Our assignment is to reply to the specific testimony of the witnesses concerning matters relating to Air Force cases.

3. Attached hereto for transmission to the subcommittee are Air Force comments on the testimony of the following:

(a) Mr. Robert R. Lent, vice president, Riggs Nucleonics Corp., Burbank, Calif.

(b) Mr. Richard Hahn, president, Airborne Research & Development Corp., Sun Valley, Calif.

(c) Mr. Henry Marcheschi, assistant to the vice president, Air Logistics, Inc., Pasadena, Calif.

(d) Mr. Elmer F. Ward, president, Task Corp., Anaheim, Calif.

(e) Mr. Kenneth V. Hackman, president, Southwest Products Co., Monrovia, Calif.

WILLIAM T. THURMAN,
*Major General, USAF, Assistant for Production Programing, Deputy Chief of Staff, Materiel (for the Chief of Staff).*

[Enclosure A]

AIR FORCE COMMENTS ON THE TESTIMONY OF MR. ROBERT R. LENT, VICE PRESIDENT, RIGGS NUCLEONICS CORP., BURBANK, CALIF. (R. 13)

Mr. Lent stated in substance (R. 23) that he, early in 1956, as a representative of Reaction Motors knew of a case where Reaction Motors submitted an unsolicited proposal relating to the problem of high-energy solid propellants, and

that this proposal was sent to the Air Force and ended up at Wright Field. Mr. Lent further stated: that the Air Force sent the proposal to outside consultants to evaluate; and that the Air Force, subsequent to its evaluation, took the proprietary data out of the contents of the unsolicited proposal submitted by Reaction Motors and wrote it into an invitation for bid without giving recognition to Reaction Motors for its contribution. He further stated that upon complaint of Reaction Motors to Headquarters, Air Research and Development Command, the invitation for bids was withdrawn from their competitors and subsequently the contract was awarded to Reaction Motors.

Our review of this case indicates that an unsolicited proposal was submitted to the Air Force, but it was not given to outside consultants. At about that same time unsolicited proposals were also received from Aerojet General, Thiokol Chemical, Phillips Petroleum, and others. In the normal course of its research and development program in this field, Wright Air Development Center sent out letters seeking the interest of several sources whom it felt would be qualified to submit proposals on high performance solid propellants. These sources were Aerojet General, Thiokol Chemical, Atlantic Research, Phillips Petroleum, Standard Oil of Indiana, Grand Central Rocket Co., Reaction Motors, Alleghaney Ballistic Laboratory, California Institute of Technology, the Jet Propulsion Laboratory, and North American Aviation. On the basis of its evaluation of all of the answers received, a formal Request for Proposal was issued on July 8, 1955. Reaction Motors was awarded a contract, AF–33(600)–32702, as a result of the request for proposal because its proposal was considered the best and most advantageous from the Government's standpoint and not as a result of any complaint on its part. No chemistry furnished by Reaction Motors was included in the request for proposal that was sent out by the Air Force. The request for proposal was based strictly on a Wright Air Development Center exhibit which was even more general in requirements than a performance specification. As a matter of interest, the historical development of this contract centered around work originally done by Olin Mathieson, the parent company of Reaction Motors, in the area of Project "Zip", under which the Government secured unlimited rights to data. Olin Mathieson Co. had a contract with the U.S. Navy under the Project "Zip," later transferred to the Air Force as AF–33(600)–33920, under which Reaction Motors was a subcontractor. This contract called for a study on liquid fuels for air-breathing engines. The chemistry was applicable to solid propellent development and formed the basis for the unsolicited proposal by Reaction Motors to WADC (TR–9325).

[Enclosure B]

AIR FORCE COMMENTS ON TESTIMONY OF RICHARD HAHN, PRESIDENT OF AIRBORNE RESEARCH & DEVELOPMENT CORP. (R. 53)

In order to understand the function of the three valves described by Mr. Hahn, it should be noted that they all relate to the ground and airborne system to provide oxygen for personnel in the aircraft. Comment on each of the valves is stated below.

THE LIQUID OXYGEN FILLER VALVE (R. 54)

Prior to 1952 the Air Force entered into research and development contracts with Eclipse-Pioneer, a division of Bendix Aviation Corp., to develop an airborne oxygen filler valve. As a result of these contracts, Bendix developed such a valve and it became standard in the Air Force and is still in general use, not only in the United States, but in the NATO countries as well. Under these development contracts, the Government secured a nonexclusive royalty-free license to all subject inventions and unlimited rights for reproduction and use for any governmental purpose to all data that emanated under these contracts.

In 1955, Airborne, upon its own initiative, and without request by the Air Force, submited a liquid oxygen filler valve which it contended was superior with respect to the leakage factor. This valve was submitted to the Air Force for tests and evaluation. Tests were made and disclosed that this valve did have a lower leakage factor than other valves known to the Air Force. On December 13, 1955, the Air Force issued a specification entitled MIL–V–25469. This was a performance specification for an oxygen filler valve and the exterior physical dimensions were taken from existing Air Force valves and not from the valve submitted by Airborne; however, Airborne's valve had the same exterior dimensions. This specification differs from preious requirements for liquid oxygen filler valves

in that it prescribed for the first time a maximum leakage factor of 0.02 liters per minute. Air Force tests performed on the valve submitted by Airborne indicated a leakage factor of less than 0.01 liters per minute. This specification did not specify as low a leakage factor as was demonstrated in connection with Airborne's valve. This was because a leakage factor up to 0.02 liters per minute is permissible, and the added costs of manufacture and inspection did not warrant requiring a valve with as low a leakage factor as Airborne's valve. While it is not certain, it does appear very likely, that the minimum leakage factor was introduced into the specification for the first time because of tests performed on the Airborn valve. In drafting this specification, the Air Force did not disclose the mechanics used by Airborne to achieve its low rate of leakage. While a low rate of leakage is highly desirable, it must be remembered that the average oxygen system has sources of leakage other than this valve. Furthermore, if a complete lack of leakage is required in this filler valve, each is equipped with an exterior screw cap that can prevent any leakage. While low leakage is highly desirable, it is not vital if kept within Air Force limits.

Mr. Hahn testified (R. 55, 56) that shortly after Airborne submitted its valve to WADD, the Air Force issued drawing No. 56B3695, and this drawing, if not copied directly, was a Chinese copy of Airborne's drawing No. 4004. A careful check of records fails to disclose that the Air Force requested Mr. Hahn to furnish a copy of Airborne's drawing No. 4004, however, we do not say that such a request could not have been made. These drawings relate to a simple brass elbow fitting containing no mechanical parts, and the purpose of the elbow is to permit a piece of pipe to turn a corner. It is the Air Force position that all features of this elbow have been in the public domain for years. The elbow in question, and copies of the Air Force and Airborne's drawings are submitted for inspection by the subcommittee. It is pointed out that the Air Force drawing No. 56B3695 is dated April 24, 1956, while the Airborne drawing No. 4004, in the possession of the Air Force, is dated May 8, 1956.

FEMALE LIQUID OXYGEN FILLER VALVE (R. 56)

This valve is on the end of an insulated hose connected to a liquid oxygen ground service trailer and is used to transfer liquid oxygen from the trailer to the aircraft. (Ground service personnel attach this valve to the mating valve in the aircraft.) Proper functioning of this valve is impeartive because of the danger of liquid oxygen to personnel.

This valve was originally developed by Bendix under the same R. & D. contract descibed under the "Liquid oxygen filled valve" above, and the Government obtained the same rights with respect to patents and data. In July 1957, Airborne submitted a female liquid oxygen filler valve to the Air Force for test and evaluation. This valve contained some improvements with respect to the leakage factor over existing Air Force valves of this type.

However, these improvements, which reduced leakage during the transfer of liquid oxygen to aircraft did not stop it. The improvements by Airborne were not considered sufficient by the Air Force to undertake a retrofit program for valves of this type.

Early in 1958, the Air Force determined that, in order to accomplish reduction of leakage of liquid oxygen transfer from ground equipment to the aircraft; to secure a valve of this type that would withstand shock and abrasion from concrete surfaces, and to obtain other improvements it was necessary to initiate a research and development program. Proposals were sent out to interested sources and four replies were received. These were evaluated by the project engineers at WADD and Airborne was rated third out of the four. The fourth proposal was unacceptable. This R. & D. contract was completed on November 30, 1959, but the results are still under consideration by WADD for further improvements prior to standardization. The importance of getting an acceptable valve of this type cannot be overestimated because not only will it become a standard in Air Force and Navy inventory, but will also become a standard item for use by the NATO countries.

The Air Force considers that the value submitted by Airborne did contain some improvements with respect to the leakage factor, but it did not contain other improvements required by the Air Force.

After careful review, the Air Force can find no record to substantiate the statement of Mr. Hahn (R. 57) that the valve has completed flight line testing and was considered completely satisfactory. Personnel at WADD most familiar with this valve have no recollection of making such a statement to Mr. Hahn.

It is the Air Force position that the R. & D. contract was fully justified in this case.

LIQUID OXYGEN DRAIN VALVE (R. 59)

This valve is a part of the airborne liquid oxygen system that furnishes breathing oxygen for personnel in the aircraft, and its function is to drain liquid oxygen from the system as necessary.

Based upon the best information available at this time it appears that Airborne did develop this drain valve and submitted it to the Air Force for test and evaluation in 1957. At this time the Air Force had no such valve in its inventory. The Air Force needed such a valve and wrote a specification, MIL–V–25962 dated February 19, 1958. This specification incorporated performance requirements indicated achievable by tests of the Airborne valve. This specification incorporated the exterior dimensional limits of the Airborne valve in order to assure interchangeability with related equipment. This was a performance specification as distinguished from a design specification and did not disclose any of the design features of the Airborne valve.

Airborne received contract No. AF 33(600)–39364 dated June 12, 1959, for 217 liquid oxygen drain valves for a total price of $8,911.86. This contract required data to be furnished. Therefore, in accordance with ASPR 9–203.1 the basic data clause in ASPR 9–203.1 was required; however, paragraph (h) authorized by ASPR 9–203.2 was included with the basic data clause in the contract and this provided that the contractor was not obligated to furnish proprietary data.

INVITATION FOR BID NO. 33–600–60–43 DESCRIBED BY MR. HAHN (R. 60)

With respect to invitation-for-bid 33–600–60–43, it is noted that this being an IFB, necessarily requires that the formal requirements and procedures for advertised procurements must be adhered to. Any general discussions as to rights in data are only applicable insofar as they conform to the procedures where advertising is involved. In this case the data clauses of ASPR 9–203.1 and 9–203.2 were included with no other clauses as to rights in data. Under paragraph (h) of ASPR 9–203.2 the contractor can withhhold "proprietary data" as defined to mean a secret of manufacture. The response made to this bid was considered to be unresponsive on the grounds that it attempted to materially vary the terms of the invitation-for-bid. The effect of the limitations in the letter of exception in the response to the IFB is to categorize engineering data as proprietary data, and is to offer to supply it provided the restrictions ordinarily imposed upon the use of proprietary data furnishd under negotiated contracts are met.

The contract clauses required by the general provisions of the IFB define proprietary data, and provide in effect that it need not be furnished under the subject contract.

The requesting of proprietary data for standard commercial supplies is applicable only to negotiated contracts and provides a limited circumstance in which proprietary data will be used.

The offer to furnish proprietary data so conditioned is inconsistent with the data requirements of the data clause contained in the IFB. Therefore, since acceptance of the bid classifying engineering data as proprietary would restrict the use of the data that might otherwise ordinarily be considered engineering data, such classification would materially vary the terms of the invitation for bid. The use of the data ordinarily submitted in accordance with an IFB is without restriction.

[Enclosure C]

AIR FORCE COMMENTS ON TESTIMONY OF MR. HENRY MARCHESCHI, ASSISTANT TO THE PRESIDENT, AIR LOGISTICS, INC., PASADENA, CALIF. (R. 97)

In early 1954, Air Logistics developed a ground support system consisting of interrelated transportation trailers, lift and positioning trailers, and maintenance work stands which were designed for handling aircraft engines and major parts of aircraft. The basic concept of these equipments (approximately 15 pieces) was that each piece of equipment had twin rails of equal configuration. Therefore, a jet engine supported between these twin rails could be moved from the work stand to the transportation trailer to the lift and installation trailer where it could be installed in the aircraft. The reverse procedure could be

accomplished to remove a jet engine. With the use of appropriate adapters this equipment also could be used for loading arms, ammunition, and stores into aircraft or for the removal or replacement of panels, wings, and other components of the aircraft. With a minimum amount of time and effort this system could be further expanded to utilize the lift trailers as incline ramps and the transportation trailers and stands as ramps for the loading of cargo into transport type aircraft.

The Air Force has procured five different models of Air Logistic trailers. Air Logistics model No. 2000 "Transportation trailer" is basically a fixed rail dolly used to transport jet engines, etc., of 4,000-pound capacity; model No. 3000 is a larger version of the model No. 2000 with a capacity of 8,000-pounds; model 3010 is a trailer with retractable wheels for use in low unit floor loading in aircraft; models 4000 and 4000A are trailers with hydraulic lifts of 8,000-pound capability and a lift of 84 inches; model 4100 is basically the same as the model 4000A except capable of lifts up to 10,000 pounds and a reach of 110 inches and model 4100B is a modification of model 4100 whereby it can be coupled to an external power pack (Air Logistics model 2400A) for remote control for precise positioning. The rails for models 4000 through 4100B are adjustable in two planes plus roll, yaw, and tilt adjustments in order to secure precise alinement of aircraft components and/or accessories required to be mounted on or to the aircraft.

In 1954 the Air Force first procured transportation trailers, models 2000 and 3000 and installation trailer model 4000, as contractor furnished under contracts with North American Aviation, Lockheed Aircraft and Northrop Aircraft. Through 1956, the total number of items procured under these aircraft contracts was approximately 3,000 units and represented a net sale to the equipment producer in excess of $7 million.

In 1955 Shelby Air Force Depot, conducted sole source negotiations with Air Logistics, the developer of the equipment, and procured 200 model 2000 trailers and 100 model 3000 trailers under contract No. AF33(602)-6886 at a unit price of $1,525.96 and $1,707.56, respectively, for a total of $676,722.31 which included trailers, adapters, spare parts, and data. Under this contract the Air Force secured unlimited rights to data on the models 2000 and 3000 trailer from Air Logistics. The Air Force paid Air Logistics approximately $154,000 to cover the development costs of these two trailers.

In 1956 a requirement became known to the Air Force for additional types of trailers; namely, the model 3010 transport trailer and the model 4100 installation trailer for use with the B-52 and the KC-135 aircraft. Again, because of the urgency of the situation and the proprietary aspects of the data concerning these trailers a contract was placed sole source with Air Logistics. Contract No. AF33(602)-8220 which covered these requirements was issued as a letter contract in January 1957 and was superseded by definitive contract in August 1957. Under this contract 144 model 4100 installation trailers at a unit price of $9,710.57, 281 model 4000 trailers at a unit price of $7,193.33 and 1,070 model 3010 trailers at a unit price of $1,213.85 were procured. The total of this procurement was $5,798,023.95 which included trailers, modification kits, and technical data (excluding reproduction data). In April 1957 this contract was supplemented to provide for a procurement of adapters to go with these trailers. Again the requirement was procured on a sole source basis with Air Logistics. Firm contract prices were to be established when the letter contract was definitized. It was anticipated in the placement of the letter contract that unlimited data rights would be secured from the Air Logistics to cover these new trailers. However, at the time of definitization of this contract the Air Force determined that (1) the $370,000 to cover development costs proposed by the manufacturer was not equitable since it had been determined that the Government had unlimited rights to data on the model 4000 trailer through contracts with prime aircraft manufacturers, and Air Logistics had been compensated, through these contracts, for the $167,000 development costs for this trailer; and (2) inasmuch as unlimited rights to the data for all equipments except the model 4100 has been acquired under previous contracts, the Air Force would develop procurement data for the model 4100 using the general principles of the other equipments recognizing the additional weight and lift capacities required for the latest types of jet engines.

In July 1957, the Air Force procured on a sole source basis from Air Logistics eight types of adapters for use on models 2000 and 3000 trailers so that various jet engines such as the J-35, J-47, J-57, J-65, J-71 and J-73 could be accom-

modated. Under the resulting contract, contract No. AF33(602)8613, the Air Force bought approximately 4,200 adapter kits for a total contract price of $1,721,000. This contract price included $45,000 for the unlimited rights to data on these adapters.

In January 1958, the Air Force did procure under contract AF33(602)–8883, an additional quantity of 52 each, model 4100 installation trailers at a unit price of $10,322.92 for a total of $596,023.85 which included trailers, spare parts, and engineering data. At this time Air Logistics, again the sole source for the equipment, was requested to furnish the Air Force procurement data for this trailer. The contractor declined stating that the data was proprietary and there were certain patents pending. This decision furthered the action of the Air Force to develop its own data for the procurement of interweapon ground support system.

The Air Force has advertised for two requirements of ground handling equipment using the data it bought from Air Logistics under contract No. AF33(602)–6886. The Air Force under IFB 33–602–57–30 advertised our requirements for models 2000 and 3000 transportation trailers in the first part of 1957. Two contracts resulted from this IFB. Contract No. AF33(602)–8662 for 2,130 each model 2000 trailers at a unit price of $617.12 was awarded to O. E. Szekely & Associates, Commerce, Ga., and contract No. AF33(602)–8663 for 1,907 each model 3000 trailers at a unit price of $677.55 to Air Logistics. It is to be noted that the data furnished by Air Logistics, on a sole source basis, under contract No. AF33(602)–6886 in 1956 was not current and more than 4 months were required to obtain data that was up to date. Also, a deficiency in the drawings (16 gage metal rather than 11 gage metal was shown) furnished by Air Logistics contributed to the failure of the first article of the model 2000 trailer however the contractor delivered the trailers on schedule.

The second advertised procurement was made in 1959. Under IFB 09–603–60–544, bids were requested on 250 each Air Logistics model 4000A trailers in accordance with specification MIL–T–26225 and on 106 each Air Logistics model 4100 trailer in accordance with specification MIL–T–26310. Contract No. AF09(603)–35200 for 250 each model 4000A trailers at a unit price of $5,341.68 was awarded to American Electronics. Contract No. AF09(603)–34395 for 106 each model 4100 trailers at a unit price of $3,055 was awarded to Alabama Bridge & Iron Co. The first article under contract No. AF09(603)–35200 is due May 16, 1960. Contract No. AF09(603)34395 has been terminated for default.

To illustrate we would like to show the prices paid when procured sole source from Air Logistics and the price paid when the requirement was advertised:

*Unit price*

| | Sole source | Advertised |
|---|---|---|
| Model 2000 | $1,525.96 | $617.12 |
| Model 3000 | 1,707.56 | 677.55 |
| Model 3010 | 1,213.85 | (1) |
| Model 4000 | 7,193.33 | 5,908.00 |
| Model 4100 [2] | 10,322.92 | 3,055.00 |

[1] None purchased.
[2] Contract terminated for default. Awarded under C.O.C.–V 115 dated May 18, 1959.

Mr. Marcheschi, assistant to the vice president, Air Logistics, in his testimony before the House Subcommittee on Small Business and Procurement Practices stated that the Air Force has not given Air Logistics a chance to recover its investment and make a reasonable profit. An examination of the records will indicate that:

Air Logistics was paid a sum of $154,000 to cover development of the models 3000 and 2000 trailers.

Air Logistics recovered their development cost of approximately $167,000 on the model 4000 trailer through contracts with airplane manufacturers for which the Air Force paid.

Air Logistics was paid $45,000 for the development of eight types of adapters for use on models 2000 and 3000 trailers.

In addition, recognition has been given to both engineering and development costs in the negotiation of prices for production runs. It is pointed out that in addition to the four Air Force contracts which were negotiated sole source

with Air Logistics for a total of over $8 million, the same types of trailers were furnished under approximately 25 aircraft contracts for an estimated total of over $20 million. Each such procurement, whether directly with the Air Force or with an Air Force prime contractor, provided adequate opportunity to recover development costs.

The profit under all but one of the contracts negotiated with Air Logistics was 10 percent exclusive of the specific costs allowed for engineering development. A profit of 9 percent was given on contract No. AF33(602)8613. Further, in late 1956 the Air Force discussed with Air Logistics the possibility of establishing an engineering division or facility that would be entirely devoted to the development and continued surveillance of all engineering aspects associated with the Air Force's interweapon ground support system which is basically the same as the system developed by Air Logistics. Acceptance of this offer to act as the engineering agency would not preclude Air Logistics from maintaining a production division that could compete in all production procurements of the equipments in the system. This offer was declined by Air Logistics in the spring of 1957, which was prior to the Air Force decision to develop its own procurement specifications.

It is the Air Force position that Air Logistics has been adequately compensated for their development of their ground handling system and that they have been afforded every opportunity to make a reasonable profit. Direct compensation of $366,000 ($154,000 for models 200 and 300; $167,000 for model 44000 and $45,000 for eight types of adapters) has been paid to this firm which covers development costs of all except the model 4100 trailer. Production contracts received either directly or indirectly by Air Logistics from the Air Force amounted to approximately $28 million. In view of the above, we consider the engineering costs have, to a very large degree been offset by production contracts negotiated sole source with Air Logistics.

[Enclosure D]

AIR FORCE COMMENTS ON THE TESTIMONY OF EDWARD P. WARD, PRESIDENT, TASK CORP. (R. 147)

In substance, Mr. Ward testified that the Government encouraged another manufacturer to violate certain patents of his company because it did not require the competitor to indemnify the Government against patent infringement.

Contract AF 33(616)-3434 was written to cover purchase request No. 6280. This was a fixed-price research and development contract for a design study for a six-component internal strain gage balance. Standard required clauses for fixed-price research and development contracts as pescribed by ASPR were utilized. Research and development clauses were appropriate since this procurement required a substantial advancement in the state-of-the-art of strain gage balances through reduction in physical size with respect to the load-measuring capabilities.

Inclusion of a patent indemnity clause, contrary to statement made by Mr. Ward would have been inappropriate and in direct contravention of ASPR 9-103 which specifically excludes its use in contracts for "supplies which clearly are not or have not been sold or offered for sale to the public in the commercial open market". Therefore, the claim that the Government encouraged another manufacturer to violate our patents by removing the usual contractual clauses wherein the producer saves the Government harmless cannot be substantiated.

On the procurement which resulted in contract AF 33(616)-3434, nine sources were solicited, three proposals were received and only two were technically acceptable. The two acceptable sources were Task Corp. and West Coast Research Co. While both were rated approximately equal in technical evaluation, Task Corp. took so many exceptions to the performance specifications that the contract was negotiated with West Coast Research Co. for $27,067. Task Corp. quoted price was $28,521.

The contractor, in order to meet the size and performance specifications, found it necessary to develop a completely new and unique folded flexure arrangement for measure of normal and side force elements for there was no commercial component or combination of commercial components available, capable of meeting the required load-measuring capabilities within the specified exterior dimensions.

[Enclosure E]

AIR FORCE COMMENT ON TESTIMONY OF KENNETH V. HACKMAN, PRESIDENT, SOUTHWEST PRODUCTS CO. (R187–198)

This company is engaged in the research and manufacture of "proprietary" bearings for special applications. It has been engaged in the manufacture and development of "Monoball" plain, self-alineing patented bearings, and other related "proprietary" items. The witness does not further state what he means by proprietary, and it is assumed, since the bearing is patented, that the company's proprietary rights, i.e., belonging to ownership, stems from the protection afforded by the patent.

The witness stated that his company designed a bearing for a main gear of a heavy transport airplane, which design met the prime contractor's qualification. He asserted that an Air Force agency let out procurement bids for the bearing, and the procurement was made on prints from Southwest's proprietary item.

The witness further stated that in three procurements, one for a strut assembly and two for rod end bearings, U.S. Bearing Co. was awarded the contracts. It was alleged that Southwest developed the bearings which were qualified by Douglas and Boeing respectively. Bearings were furnished both companies, and drawings were furnished Douglas. On the basis that in each of the three procurements Southwest's part number "or equal" was called for and the Rockwell hardness of the bearing was indicated in the RFP, the witness assumed that the Air Force had to have the drawings and to have used them. He stated, however, that he had not taken up the matter with Douglas to find out how the Air Force got drawings submitted to Douglas and had no way of knowing that Douglas did not submit the drawings to the Air Force without Southwest's proprietary rights notice.

The chairman summarized the witnesses testimony as "The charge being made by Mr. Hackman is the Air Force invaded his rights by taking his drawing and submitting them and calling for competitive bids. Before we can make the charge that the Air Force violated his rights, we have got to show how the Air Force got those drawings with notice that they belonged to him."

It is significant to note, as the chairman did, that subsequent to the time that the requests for proposals were received by Southwest, that company received an inquiry from Wright-Patterson Air Force Base on behalf of mobile air materiel area, whether it would furnish a blueprint of Southwest's part No. BSR–40150–GC (the 9407–G strut assembly). It would appear obvious that if either Wright-Patterson Air Force Base which stores the drawings, or mobile air materiel area had that particular drawing, there was no point in requesting it. This is the drawing which the witness assumes was given the Air Force by Douglas.

As stated by the witness, each of the RFP's was negotiated on an "or equal" basis. Several sources were solicited. At no time were any drawings belonging to Southwest Products Co. used in any of the procurements complained of. Nor was there any necessity for the use of any drawings, since on an "or equal" basis, the bidder can either provide the brand or trade name article or its equal.

As a further matter of significance, the witness was silent on the point of whether the request for proposal was accompanied by one of the drawings alleged to have been wrongfully used. Our investigation indicated that no drawings were attached to the request for proposal. The request for proposal received by his company would of necessity have been identical to those received by other prospective bidders.

In accordance with title 10, United States Code, section 2451, the Air Force has taker. appropriate action as hereinafter described. We quote paragraph 2451 in pertinent part.

"2451. Defense supply management

"(a) The Secretary of Defense shall develop a single catalog system and related program of standardizing supplies for the Department of Defense.

"(b) In cataloging, the Secretary shall name, describe, classify, and number each item recurrently used, bought, stocked, or distributed by the Department of Defense, so that only one distinctive combination of letters or numerals, or both, identifies the same item throughout the Department of Defense. Only one identification may be used for each item for all supply functions from purchase to final disposal in the field or other area. The catalog may consist of a

number of volumes, sections, or supplements. It shall include all items of supply and, for each item, information needed for supply operations, such as descriptive and performance data, size, weight, cubage, packaging and packing data, a standard quantitative unit of measurement, and other related data that the Secretary determines to be desirable.

"(c) In standardizing supplies the Secretary shall, to the highest degree practicable—

(1) standardize items used throughout the Department of Defense by developing and using single specifications, eliminating overlapping and duplicate specifications, and reducing the number of sizes and kinds of items that are generally similar; * * *"

The Armed Services Support Center, Washington, D.C., publishes DP (meaning descriptive pattern) 6564A, Federal Item Identification Guide for Supply Cataloging. It is used by all supply personnel and is distributed to industry for the purpose of supplying descriptive patterns which have been adopted under title 10, United States Code, section 2451.

In accordance with its statutory duty, the Air Force prepared Federal Supply Catalog DD, form 146, in accordance with DP 6564A for item Federal supply class 3120, identification No. 540–9886, bearing, plain, self-alining. The word description describes a single, standardized item under the Federal single catalog system. All A bearings manufactured to it will be an equivalent or equal. While this DD146 was prepared January 16, 1958, the 12-digit number in the upper right-hand corner indicates that the identical total description was carried in a supply catalog in use prior to 1956. The No. 3129, Federal supply class, indicates that this item is group 31 bearings, class 20 bearings, plain. Item 2 designates the drawing group which illustrates the part and provides a legend for the various dimensions which standardize the item.

Federal Item Identification Guide for Supply Cataloging, FSC group 31, reference drawing group 191, published July 1, 1955, provides an illustration of the precise bearing under discussion.

The second item of which the witness complained was his company's part number BRE 8115L bearing, plain, rod-end. This is Air Force part No. 3120–661–8909. It too is described in detail on DD Form 146 of the Air Force records and the drawing of which supports the DD146. The DD Form 146 for this Air Force part was prepared March 26, 1956, and the 12-digit number in the upper right-hand corner indicates that it had been identically described in previous standardization document.

The third part concerning which this witness testified is bearing, plain, rod-end, Southwest part No. BRE8110L, Air Force part No. 3120–661–9581. DD Form 146 prepared March 26, 1956, describes this bearing in detail. It too was previously described before the DD Form 146 became operative as the implementation of the above cited statute. The Federal Supply Catalog group 31 drawing supports the DD 146.

There is no question of a doubt that in the procurement of the three bearings complained of by this witness the procurement officer took the information specifically from the three DD Forms 146 described above. The requests for proposals, copies the word descriptions contained on the Forms DD146. This is the only information that was given in the RFP, and no drawings were furnished, although drawings FSC group 31 which were prepared by the Air Force could have been available to any bidder.

The obvious question is, where did the Air Force get the information that appears on the Forms 146? It could have been taken from many sources: from a contractor's catalog, from a drawing furnished the Air Force, by the simple expedient of asking the manufacturer to supply the information (which is a practical method followed every day) or it could have been furnished either by the prime contractor or a subcontractor if required by the terms of MIL–D–26715. This document requires contractors under contracts which contain it to prepare and submit item identification data for each item selected or authorized for Air Force procurement. Paragraph 60 of appendix 1 to MIL–D–26715 provides that if the contractor considers his specific description as a disclosure of trade secrets, the specific description pattern shall be considered nonapplicable and it need not be furnished.

An exhaustive investigation has been made to determine the exact source of the word description which describes the standardized bearings and which appear in the Federal Supply Catalog. There have been in excess of 1,200,000 word descriptions prepared since the passage of the standardization and catalog-

ing statute, and it is impossible to trace the source of the information. The Air Force cannot, therefore, advise this committee whether any information which it placed on the DD Form 146, and which in turn was used for the purpose of procuring these bearings, was taken from any legally restricted drawings properly protected by Southwest Products Co. Obviously, however, these bearings are of such a common nature, and are described in such detail both by word and drawing, that any competent bearing manufacturer could produce them. As a matter of actual fact, bearings were bought from Southwest's competitor, have been placed in the inventory, and have been used for the purpose for which they were intended. They are of necessity an "or equal" and have been determined by actual use to have been an "equal" bearing.

It is the Air Force position that from the evidence which has been developed, the Air Force, relying on the statute to standardize equipment, has accomplished the purpose intended by Congress. We conclude that the witness' charge that the Air Force has been guilty of any violation of any duty imposed on it has not been substantiated by the record before this committee, and that the Air Force has not been shown to have used any proprietary data.

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APPENDIX No. 7

MACHINERY AND ALLIED PRODUCTS INSTITUTE,
*Washington, D.C., April 18, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Subcommittee on Small Business and Government Procurement, House Small Business Committee, House of Representatives, Washington, D.C.*

DEAR MR. MULTER: We appreciate the opportunity to present the views of the Machinery and Allied Products Institute as a part of the record of hearings conducted by your subcommittee on the question of acquisition by Government contract of manufacturers' proprietary technical data.

The Machinery and Allied Products Institute is a national organization of capital goods and allied product manufacturers. While MAPI is not primarily a small business organization, many American capital goods manufacturers do, of course, qualify under the technical definition of a small business. In fact, capital goods are largely manufactured by small and medium-sized firms and the Institute is, therefore, fully cognizant of, and altogether sympathetic with, the problems of the smaller company. One further introductory remark is revelant to this discussion. The vast majority of capital goods manufacturing companies are not primarily defense contractors although many such companies manufacture items which are absolutely essential to our national defense program.

The companies which comprise the Machinery and Allied Products Institute, regardless of size, are very much like those small businesses which testified in this hearing in at least one important respect—they are primarily engineering industries depending for success and growth upon the continuing excellence of their research and engineering. Hence, they have an especially important stake in the issues involved in this controversy.

The Institute's deep interest in the problems to which the subcommittee has addressed itself stems not so much from any important reliance of its member companies upon defense work as upon the conviction that unless some solution is found to this problem which has for so long vexed Government-industry relations the defense of the United States must eventually suffer. To insure our defense the Government must have available to it the continuing flow of industry's best thinking on the fantastically complex technological problems which confront us; to insure that it must lick the proprietary rights problem.

As you may know, the Institute's continuing activities in this area culminated recently in the sponsorship of a joint Government-industry conference on the subject of proprietary data—and the closely related problem of Government procurement patent policy—held in Washington on March 9–10. It has been our pleasure to make the record of that hearing available to the staff of the subcommittee.

We think the subcommittee is to be commended for having considered in detail this most serious problem and for the searching and fair-minded examination of the facts which its hearing represents. All too frequently the problem of proprietary technical data has been considered in congressional hearings, if

at all, only as an incident of much broader inquiries in the Government procurement field. Your subcommittee's recognition of proprietary data's unique importance to industry and its search for the facts of the matter are therefore especially praiseworthy.

We should add that one of the more encouraging features of the subcommittee's investigation was the thoroughly open-minded attitude on the question evidenced by Pentagon witnesses, an attitude also clearly evidenced by Pentagon speakers at the Institute's recent conference on this subject. It should be recognized that the Pentagon has made at least one attempt at improvement by amendment of the armed services procurement regulation.

Recognizing as we do that your subcommittee has no desire to interfere with the day to day administration of the public's business, we are hopeful that the combination of factual evidence unearthed by the subcommittee and the altogether constructive approach taken by Pentagon officials may lead to some real improvement in this field. In the hope that we may be of some assistance to the Department of Defense, the Institute—upon the basis of its recent industry-Government conference on this subject—proposes to file with the Pentagon specific recommendations for appropriate changes in the armed services procurement regulation.

## SOME GENERAL OBSERVATIONS

As a preliminary and an introductory outline to our detailed discussion of this problem, we have set out below certain general observations which are, we think, of paramount importance in considering the acquisition by Government contract of manufacturers' proprietary data. These statements—or general principles—are based upon our review of the record of the subcommittee hearing as well as the Institute's own rather considerable experience in the field.

1. The preservation of incentives to private research and development is of paramount importance to both Government and industry.

2. The development of an equitable and workable solution to the current proprietary data problem is not primarily a matter of legal definition.

3. The administration of present procurement regulations relating to the acquisition of proprietary data under Government contracts—taken in conjunction with typical specification requirements for engineering drawings—is almost wholly unworkable in the case of standard commercial articles and articles purchased under formally advertised contracts.

4. Indiscriminate demands for proprietary data have been and are being made by procurement officers where no real need for such data exists. This lack of discrimination may result, in part at least, from pressures in this general field emanating from the General Accounting Office, and in some cases, the Congress itself.

5. The plight of the subcontractor—frequently a small business firm—faced with demands by a prime or upper tier subcontractor for delivery of proprietary data is especially unfortunate.

6. It is difficult, if not impossible, to negotiate any really adequate price for the transfer of full rights to proprietary data to the Government.

## THE PROBLEM OF INCENTIVES

The subcommittee chairman's release of March 29 makes clear the importance of proprietary data to all manufacturers large or small and includes specific reference to "the possibility of discouragement of individual research and development by industry in Government contract work and the taking without due compensation of manufacturers' proprietary data developed at great expense and over long periods of time."

This statement of the problem, it seems to us, goes to the very heart of the matter and calls into question immediately the precarious balance between the Government's interests on the one hand and the interests of the manufacturer on the other. Certainly it is desirable for Government to obtain the weapons which our defense requires at the lowest possible cost; it is equally desirable that the Government should have available to it multiple sources of supply because of the possibilities of wartime destruction and in order to insure procurement at reasonable prices. Conversely, over-reaching by Government procurement officials in an attempt to achieve these ends may so discourage industry, and especially small business, as to drive from the market place some of our most imaginative and creative contractors, thereby ultimately reducing the quality and increasing the cost of our total defense program.

There is substantial evidence in the record of the subcommittee's hearings that this balance has been destroyed. The testimony of witnesses in this hearing to the effect that their research efforts—heretofore motivated largely by defense business—are now actively directed toward development of commercial products and commercial markets as contrasted to defense work would seem to confirm this conclusion. And although generalizations are invariably dangerous, we see very considerable evidence of the same attitude among capital goods manufacturers.

One further point deserves reiteration. One cannot repeat too often the proposition that a manufacturer's know-how—the total complex of techniques, confidential knowledge and special understanding by which he has achieved his present position and upon which he depends for future success—constitutes the very essence of his competitive position. This being true, it is difficult to imagine an action more wholly disincentive in character than one which deprives the manufacturer of such know-how.

At the risk of laboring the obvious, we repeat that the problem of incentives is an especially sharp one and it falls with special force upon the small or medium-sized firm whose limited resources require it to rely for survival upon superiority of design and manufacturing techniques. Indeed, we can think of few steps having greater benefit to our national defense picture in the long run than a positive assurance that a defense contractor can protect and preserve—and profit from—the fruits of his own creativeness. If this hearing accomplishes nothing more than to emphasize the indispensability to the success of our defense program of preserving and encouraging private incentive it will have served a most useful purpose.

## PROPRIETARY DATA NOT PRIMARILY A LEGAL PROBLEM

The fairly extensive literature on this subject indicates sharp disagreement among equally competent lawyers as to what constitutes proprietary data in the purely legal sense. If one considers such information the equivalent of trade secrets as understood by the common law, the term is obviously much broader than proprietary data as defined in the Armed Services Procurement Regulations. Conversely, if one accepts the Pentagon definition—which accords protection only to information not discoverable by reverse engineering—one has so reduced the area of protection as to make it virtually nonexistent for all practical purposes.

We do not intend to argue here who is right and who is wrong in this dispute; the resolution of that legal question would necessarily solve the problem now facing the subcommittee and the Pentagon. We do not think the problem here is primarily a legal one; it stems in part from an unfortunate definition of proprietary data and more importantly from an attitude on the part of procurement officers that tends to aggravate and magnify this built-in difficulty of the definition.

### *The reverse engineering problem*

The greatest single difficulty in the present ASPR definition of technical data is found in that portion of the definition which says that protection will not be accorded information concerning a product which is disclosed by inspection and analysis of the product itself, a process sometimes referred to as reverse engineering. The immediate result of introducing the reverse engineering test as a refinement upon the basic secrecy test has been to place upon the manufacturer an additional burden beyond that of preventing the publication of a trade secret.

He now bears the burden of showing that the information which he claims is proprietary cannot be discovered by inspection and/or analysis—and without reference to how long this process might take or how much it might cost to accomplish.

The present definition raises still a further difficulty for the manufacturer. The introduction of the reverse engineering test has so distorted the usual approach to the protection of intellectual property in the form of trade secrets that industry is now confronted with an attitude on the part of Government procurement officers which seems to go something like this: If the essential characteristics of an item can be discovered by the Government, regardless of time or expense, then the contractor is obliged—ipso facto—to disclose such information in drawings delivered to the Government and without compensation. To

phrase the matter differently, the Government now appears to believe that its undoubted right to engage in reverse engineering entitled it to the product of such reverse engineering without actually paying the costs involved in such work. One need only consider the reverse engineering test in these terms to appreciate its patent absurdity and its gross injustice in practice. It should be eliminated forthwith from the definition of "proprietary data."

We note with approbation that Mr. Bannerman's recent testimony before your subcommittee tends to modify the rigor of the present definition by referring to information "*which can be readily obtained* by analysis and examination of the product and. hence, which can be readily copied by others" [italics supplied]. The test suggested in Mr. Bannerman's testimony is quite a different one than that appearing in the present definition as interpreted by procurement officers in the field. Although we acknowledge that the "rule of reason" suggested by Mr. Bannerman would represent a distinct improvement, we think that the presence of the reverse engineering test in any form raises almost insuperable administrative problems and that it should be eliminated.

### THE ADVERTISED BID PROBLEM

The present armed services procurement regulation makes it clear that proprietary data will not be required in connection with procurement let by advertised bids or in the negotiated procurement of standard commercial articles. Nevertheless, testimony introduced in these hearings makes it clear that advertised bids have been one of the most fruitful sources of proprietary data problems under present regulations. Moreover, this is confirmed by the experience of capital goods manufacturers whose sales to Government consist, for the most part, of standard commercial articles frequently sold by formally advertised bid procedure.

*The case of contractor A*

It may be useful to exemplify the pitfalls which beset the path of the contractor who wishes to bid on a formally advertised proposal and at the same time protect his privately developed know-how. Let us suppose that contractor A accepts ASPR at face value and enters a bid on a formally advertised proposal, secure in the knowledge that his know-how is protected. Subsequently, he learns that in so bidding he has in fact agreed to deliver drawings—containing information clearly proprietary in character—either to satisfy the requirements of a military specification or because his know-how is discoverable, however laboriously and painfully, by the reverse engineering test. In either case he will almost certainly be required to deliver such information to the Government with an unlimited right to use it in any way. And all this without compensation, of course.

Having experienced this misfortune, contractor A considers another invitation for bid form. There is one thing of which he is certain, and that is that under no circumstances will he surrender more of his know-how. Accordingly, this time he hedges his bid by asserting affirmatively that his drawings will be furnished only for certain purposes but that full rights to the Government will not be granted. This time his bid is rejected as unresponsive. Is it likely that contractor A will be interested in further Government business? To put it another way, is not the area of competition, which Government seeks to widen, being narrowed as a result?

Obviously the bidder is faced with an intolerable dilemma, a dilemma described most vividly in the testimony before this subcommittee by Mr. Richard Hahn, president of Airborne Research & Development Corp. This example—which is typical rather than unique—will serve, we think, to emphasize the very definite obstacle which present proprietary data regulations present to realization of the congressional desire for more advertised bidding. And insofar as procurement is accomplished by formal advertising, it will presently attract only the incompetent and the backward with no trade secrets to protect.

*A bill of particulars—and a solution*

The problem appears to lie in the fact that there is no appropriate way to determine prior to contract award whether the technical information required in connection with the IFB is proprietary in nature. Many possibilities for providing some type of advance ruling in the nature of the data required have been advanced in the past, but such proposals have been rejected on the ground that they would contravene either the letter or the spirit of our existing competitive

bid status. It now seems to us, on reflection, that a means is available to cure this problem. The underlying policy enunciated in the "data" clause, which appears in the standard provisions of the invitation for bids, not to acquire proprietary data under formal advertising, should remain intact. The remedy lies in deleting proprietary data requirements from the manufacturing drawings specifications which are incorporated, as a matter of course, in IFB schedules. The Department of Defense should instruct the military service buying agencies to review the manufacturing drawings specifications relating to standard or nearly standard items procured through formal advertising. There should be a deletion of all existing demands in such specifications for tolerances, etc., or information which is concededly proprietary even within the narrow ASPR definition of that term, in connection with the drawings to be required under the contract. Such a review would bring an end to the present intolerable situation in which the contractor must at his own peril solve the latent conflict between the data clause and the drawing specifications.

*Advertised versus negotiated procurement*

Although we have convictions on the point, we do not believe this is the proper forum in which to discuss in detail the question of advertised versus negotiated procurement. The fact is that advertised procurement is—and for many years has been—the statutorily and administratively preferred method of procurement. Moreover, recent years have witnessed mounting pressure from the General Accounting Office, from some representatives of business, and from certain congressional committees for an increase in volume of contracts let by formal advertising.

Regardless of the merits of the advertised versus negotiated procurement argument, the use of formal advertising as described above has created a tragic anomaly in the area here under consideration. A procurement device which, on its face, should porduce the fairest possible competition for the public business has, in fact, become an instrument by which the advanced know-how of the imaginative and creative firm may be taken from it for distribution to its competitors. Assuming that such a firm is sufficiently gun shy from past experience, the IFB then may become a device which bars him from bidding on the public business. Either result is tragic for the company and, ultimately, for the Government.

As we have already suggested, procurement policy—and administration—relating to the acquisition of proprietary data under Government contracts presents an increasingly serious obstacle to realization of the congressional purpose of broadening and strengthening the process of procurement by formal advertising.

*Standard commercial articles*

Before closing this discussion, we think it might be useful to call attention to problems confronted by manufacturers of standard commercial articles whose products may be procured either by formal advertising or by negotiation. Again, ASPR makes it clear that proprietary data is not to be obtained in connection with the procurement of such articles. The fact is, however, that the present definition of proprietary data is so narrow in concept and so restricted in administration that as a practical matter the standard commercial article producer is confronted with the same problem. Moreover, the problem for him is a particularly serious one because the loss of his know-how may seriously endanger his competitive position in commercial markets.

*Cataloging and standardization*

The proprietary data problem is complicated by the cataloging and standardization program of the Government which in many cases requires technical information in substantially the same detail as that required for reprocurement. Moreover, there is testimony in this record to indicate that this has served to make of the Government—perhaps unwittingly—a transmission belt of technical data to actual or potential competitors where direct demands for such information have been rejected. This phase of the problem seems to result in large measure from a failure to coordinate and integrate the technical data policies of ASPR with the objective of the DOD cataloging and standardization program.

### PROBLEMS OF ADMINISTRATION

Quite aside from the narrowly restrictive definition of proprietary data now appearing in ASPR, there are, we think, serious problems of administration to which the subcommittee and the Pentagon might profitably give attention.

Regulations are clear that the Government will in no case demand data for which no clear and present need exists. Moreover, regulations appear to make it clear that no greater rights in data will be sought than are needed to satisfy the purpose for which such data is obtained. It is our conviction—based on considerable institute experience and amply confirmed by the testimony in this record—that both general rules are frequently, if not consistently, violated in actual procurement administration.

*Governmental need for data*

Faced as he is with the continuing criticism of the General Accounting Office and the Congress itself for failure to obtain "everything to which the Government is entitled"—including proprietary technical data—the contracting officer reacts in a perfectly human fashion by obtaining everything that he can lay his hands on regardless of whether or not any governmental need exists for the material obtained. And the relative bargaining position of the parties makes it virtually impossible for the contractor—and especially the small one—to resist indefinitely the pressure exerted by the contracting officer.

*"Limited" versus "unlimited" rights*

As for limiting governmental demands in accordance with the nature of the purpose for which data is to be obtained, the Government as a matter of administrative practice insists in almost every case upon an unlimited right to use such data for any purpose including the transfer to competitors and to foreign governments and foreign manufacturers. The fact is that procurement personnel are loath to accept manufacturing drawings, the use or circulation of which is limited by inscription thereon of a legend of limitation.

Rarely in our experience has the Government actually resorted to the technique of contractor-to-contractor licensing, an alternative specifically established by its own regulations as preferable to acquisition of proprietary data under contract. Such licensing, in the vast majority of cases, would satisfy Government requirements without endangering the commercial position of the contractor.

The Pentagon should promptly investigate certain charges made in this hearing—and which are supported by information brought to our attention—that: (1) demands for data are made indiscriminately by contracting officers and without reference to the existence of a genuine governmental need for such data; and (2) that the Government frequently demands data with an unlimited right to use when a limited right to use such information would be entirely sufficient for the Government's purposes. And if the truth of these charges is shown then steps should be taken promptly—by amendment of ASPR and by tightened administration—to overcome these twin evils.

### PROBLEMS OF THE SUBCONTRACTOR

We can add little to the testimony already offered in these hearings on the special problems of the defense contractor who has no privity of contract with the Government, and is denied recourse to administrative redress of contractual grievances, but who, at the same time, is confronted regularly by demands from prime contractors and upper tier subcontractors to supply them with his manufacturing know-how.

This is not wholly the fault of the Pentagon except insofar as the Pentagon's policy in respect to acquisition of subcontractors' proprietary data is not made wholly clear to prime contractors. For example, it is clearly not intended that a prime contractor working under a research and development contract—and who is required to deliver to the Government without additional compensation all proprietary rights resulting from contract performance—should similarly obtain proprietary rights to a standard commercial article which is purchased from a subcontractor for incorporation in a prototype model to be built by the prime contractor. Nevertheless, this type of demand is regularly made upon subcontractors largely as a result of prime contractors slavishly passing down the contract chain demands for data made upon them by the Government.

We do not mean to imply that prime contractors are necessarily overreaching in making such demands but the result of such demands is clearly inequitable to subcontractors. We find no serious fault with the general expression of policy on this point appearing in the present Armed Services Procurement Regulation (ASPR 9—202.1). It seems obvious, however, from testimony offered in this hearing and in the substantial volume of complaints received by the institute that the policy is not in fact being followed in actual practice and that the Pentagon should immediately undertake such steps as may be necessary to insure adherence to the general policy.

We suggest that the Department of Defense might consider preparation and issuance of an appropriate instruction to all defense contractors—both primes and subs—elaborating upon and emphasizing the present policy which says in effect that a prime contractor will not request of a subcontractor unlimited rights in proprietary data where such rights would not be required by the Government if it were dealing directly with the subcontractor. In addition to underlining the problem by a restatement of general policy such an instruction, in our opinion, should explain more fully the application of this policy in procurement administration. Further, it might tend to preclude the perfunctory passing on by prime contractors to subcontractors of the standard ASPR data clause without determining its appropriateness in the specific contract situation.

### THE PROBLEMS OF PRICING

Perhaps no aspect of this whole question is more difficult than the matter of how technical data is to be priced. There are literally no tests or landmarks to which the negotiating parties may refer.

We refer to this problem, however, because of the assumption which underlies the extended and continuing discussion of this subject that the Government is in fact buying some considerable volume of proprietary data. We doubt the soundness of this assumption. In fact, we have yet to meet a defense contractor or subcontractor who has ever sold any proprietary data to the Government except for purposes of repair or emergency manufacture. Further, in these few cases, reimbursement has been limited to the bare cost of reproducing the information.

Moreover, as we have noted, if and when the Government does reach the point where it is prepared to buy proprietary data, the problem of pricing the subject of the sale is extremely difficult, to say the least. There is quite literally no standard by which such information can be properly evaluated unless it be the cost of obtaining such data by reverse engineering—and what is being discussed here is the application of that standard without doing the work involved.

If these observations on the very practical questions of how much data the Government actually buys and how much it pays for what it buys prove anything, they would seem to prove this: the Government obtains vast amounts of data, much of which is proprietary in character, with compensation actually paid in very, very few cases.

The matter is important because nothing has contributed more to the feeling of impotent frustration, voiced by witnesses in this hearing—and very widely felt in the industry—than the conviction that we are engaged in a kind of solemn but meaningless ritual. The Government seems determined to take proprietary data for the purpose of establishing competition; it seems equally determined to accomplish this by forcing the private developer of proprietary information to share it with his own competitors; and, finally, it seems determined to pay nothing for such information.

We observe by way of repetition that a continuance of this condition must necessarily destroy all incentive for private technological advance which, in our judgment, is indispensable to the national defense effort.

### SOME SPECIFIC RECOMMENDATIONS

The general observations appearing above are submitted in order to complete the record of the hearing and to offer the subcommittee the benefit of capital goods manufacturers' experience. We do not believe our statement would be complete, however, if we were not prepared to go a little further and make certain specific recommendations as to how this problem might be cured, nor, having in mind the chairman's thoroughly pragmatic approach to the problem, do we think our statement would be useful in the absence of such suggestions. Our recommendations appear below:

1. Procurement regulations should make clear as a matter of policy that, where technical data requested by the Government is both secret and commercially valuable and has been developed at the contractor's own expense, his property right therein should be recognized and he should be appropriately compensated for unlimited rights to the use of such information.

(*a*) We recognize that ASPR asserts as a matter of policy that DOD will encourage inventiveness and provide incentive therefore by honoring "proprietary data" resulting from private developments. The fact is, however, that the present definition of proprietary data together with defects in procurement administration, to which we have referred and in connection with which we have made specific recommendations below, have operated to make of this statement an almost empty declaration. Our suggestion represents no real departure from present policy but its enunciation in ASPR together with such other changes as we are suggesting herewith would go far toward providing the kind of guidance to contracting officers and reassurance to contractors that are now so badly needed in this area.

2. The present ASPR definition of proprietary data should be amended to omit the "reverse engineering" limitation.

(*a*) The deletion of the "reverse engineering" test may not be sufficient in and of itself to make the definition accord perfectly with the views of a legal purist. In our opinion, however, it will serve to make of the definition a workable tool of administration. Obviously the Government dare not so define "proprietary data" as to make it possible for the contractor to decide for himself what is or is not proprietary; to avoid this difficulty the definition, in our judgment, need do no more than indicate that protection will be accorded such information in accordance with the common law rules governing protection of trade secrets.

3. By appropriate instruction or otherwise, the Pentagon should reemphasize the desirability of contractor-to-contractor licensing as an alternative method of establishing multiple sources of supply where this becomes necessary from the Government's standpoint. There can be no question that the Government's position will from time to time require such action and, indeed, ASPR already makes it clear that its accomplishment by licensing is preferable to acquisition by the Government of proprietary data for this purpose.

4. The Department of Defense should direct the review of all manufacturing and engineering drawing specifications on items customarily procured by formal advertising with a view to eliminating from such specifications all requirements for proprietary technical data.

5. The Pentagon should issue promptly new instructions to both prime and subcontractors making clear and reemphasizing that prime contractors will require from subcontractors no more and no other proprietary data than the Government would have required of them if it had dealt with them directly.

6. The Pentagon should undertake a throughgoing review of field administration in this area to insure that contracting officers do not indiscriminately require proprietary data without reference to any clear need for such information and that the Government is not demanding an unlimited right to use such data when its need is of a limited character.

(*a*) The present definition of proprietary data together with the regulatory injunction that "when data other than 'proprietary data' is obtained it shall be obtained without any limitation on its use by the Government" have operated to encourage indiscriminate demands for data which is in fact proprietary in character. Moreover, the position of the contracting officer, as we have noted above, is such that the interests of self-protection almost demand all data for which there might conceivably be a governmental need.

(*b*) It seems clear that a governmental requirement for data in such detail as to permit its use for reprocurement is an exception to the normal situation in which the Government may require technical information concerning a product for such limited purposes as operation and maintenance, repair or emergency manufacture, and the requirements of the Pentagon's cataloging and standardization program. This being true, it would seem to us that much of the present difficulty might be eliminated if prescribed contract "data" clauses were amended to affirm that data being obtained will not be used for purposes of establishing multiple sources of supply. In those cases where such a purpose is present the data clause employed

could be appropriately modified to cover that situation. All of this assumes, of course, an appropriate redefinition of proprietary data in line with the suggestions outlined above.

As we have indicated at the outset, we propose to file with the Pentagon in the near future a set of specific recommendations as to how pertinent recommendations might be amended and as to means by which administration in this area might be substantially improved. Again we should like to express our appreciation to the subcommittee and to the members of its staff for their kindness in permitting us to file this statement for the record and for the many courtesies which they have shown the institute.

Respectfully submitted.

CHARLES W. STEWART, *President.*

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APPENDIX No. 8

TEKTRONIX, INC.,
*Annandale, Va., April 14, 1960.*

SUBCOMMITTEE ON SMALL BUSINESS AND GOVERNMENT PROCUREMENT,
SELECT COMMITTEE ON SMALL BUSINESS,
*House of Representatives,*
*Washington, D.C.*
(Attention of Mr. Irving Maness, counsel).

GENTLEMEN: Your accepting our letter of March 28, 1960, to the Honorable Walter Norblad into the records of your committee, is very much appreciated. We are taking the liberty of submitting additional information which will explain a typical problem in the area of the Government encouraging the copying of private designs on standard, commercial, off-the-shelf catalog items in the electronic measuring instrument field. Technological progress in military electronics is aided quite materially by progress in the commercial electronic instrument field, which is the major justification for the Government's seriously considering this problem.

Tektronix is a supplier of catalog or commercial off-the-shelf electronic test equipment to industry and various departments of the Government. These items have been developed by private capital, without benefit of development or research contracts. Therefore, we feel that our private designs are our own exclusive property with the right to determine licensees. Also, we feel the Government should enter the commercial market on the same basis as other commercial users.

As an indication of a typical problem, we attach a copy of a brief summary we prepared on an Air Force procurement for use in discussing our patent infringement claim with personnel of the Patents Division, Office of the Air Judge Advocate General. You undoubtedly have an abundance of information, so we are including only this portion of our case history.

Since you probably recognize that problems do exist in this specialized field, we earnestly hope you will seek relief for the patent infringement problem by providing for the granting of temporary and permanent injunctions against infringement except, of course, during a time when a national emergency is declared by the President. Also, it would save the Government time and trouble to permit patent owners to sue patent infringers directly in civil courts, in addition to permitting them to go into the court of claims except, of course, when a state of national emergency has been declared by the President.

It is noted from Mr. Bannerman's statement before your committee that recognition of the existence of a problem is given in the Department of Defense. We respect the complexity and immensity of procurement problems in Government and would like to assist in any way we can in efforts to find reasonable solutions. We appreciate sincerely the consideration you and the committee have given this specialized problem.

Sincerely,

TEKTRONIX INC.,
W. B. WEBBER, *Vice President.*

BRIEF SUMMARY OF AIR FORCE PROCUREMENT RFP 33-604-59-1944 DATED MAY 6, 1959, ISSUED AT GENTILE AIR FORCE BASE

This brief summary is prepared as a basis of discussion with the Air Force Patent Division, Office of the Judge Advocate General.

1. Tektronix type-545 cathode-ray oscilloscopes and plug-in preamplifiers were desired on the basis of competitive bidding.

2. Since Hickok Electrical Instrument Co. was not a previous supplier of laboratory-type cathode-ray oscilloscopes, they were accepted as a qualified bidder on the basis of their submission of a prototype model 1805 for evaluation, which we have reason to believe was an actual Tektronix oscilloscope reworked by Hickok. This belief cannot be proven at this time, as we do not have access to the prototype, which may not be in existence in the original form it was evaluated. We further have reason to believe that the Hickok representatives admitted, at the time of submitting this prototype, that actual Tektronix-manufactured components vital to the electrical performance of the instrument, including delay line and parts of our vertical amplifier as well as mechanical parts, had been used.

3. The request for proposal included the following instrument items:

(1) Oscilloscope Tektronix Model 545 less Plug-in Preamplifier, or Hickok Model 1805 less Plug-in Preamplifier.
(2) Preamplifier Tektronix 53/54B [1]
(3) Preamplifier Tektronix 53/54C [1]
(4) Preamplifier Tektronix 53/54D [1]

The contract No. AF 33 (604) 24432, was awarded to Hickok for their Model 1805 oscilloscope and Tektronix plug-in preamplifiers, as specified in items 2, 3, and 4. A complete operating unit consists of one electrically and mechanically interchangeable plug-in preamplifier and one oscilloscope. Therefore, the Hickok Model 1805 would have to be a copy of the Tektronix Type 545 in order to operate satisfactorily with these plug-in preamplifiers. In a cathode-ray oscilloscope of this type, physical layout has a significant bearing on the electrical performance of the instrument. By producing a direct copy, Hickok was relieved of a vast amount of engineering work, thus enabling them to submit a lower bid.

4. Further in the support of our belief that reworked Tektronix instruments were submitted as prototypes, a photograph is contained in the "Preliminary Data Operation and Service Instruction for Oscilloscope Model No. 1805" dated November 16, 1959, on pages 1–7, wherein the photograph used appears to contain a notice of patent statement such as is placed on Tektronix-manufactured type 53/54B plug-in preamplifiers, item 2 on the Request for Proposal.

5. Schematic drawings in the Hickok "Preliminary Data Operation and Service Instruction for Oscilloscope Model No. 1805" dated November 16, 1959, appear to include all circuit components in the same type, value, and circuit arrangement as in the Tektronix-manufactured equipment.

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APPENDIX NO. 9

GENERAL ACCOUNTING OFFICE VIEWS AND COMMENTS ON PROBLEM OF PROPRIETARY RIGHTS AND DATA AS ADMINISTERED BY THE MILITARY DEPARTMENTS UNDER SECTION IX, PART 2 OF ASPR

COMPTROLLER GENERAL OF THE UNITED STATES,
*Washington, D.C., May 17, 1960.*

HON. ABRAHAM J. MULTER,
*Chairman, Select Committee on Small Business,*
*Subcommittee No. 2, House of Representatives.*

DEAR MR. CHAIRMAN: Further reference is made to your letter of March 9, 1960, requesting our views and comments on the problem of proprietary rights and data as administered by the military departments under section IX, part 2, of the Armed Services Procurement Regulation (ASPR).

Our comments are directed only to rights and data involved in the procurement of supplies, material, and equipment by the military departments, exclusive of rights and data pertaining to research and development contracts under which the Government acquires an unlimited use to data, etc., obtained in the performance of such contracts.

Generally, proprietary rights and data are not obtained by the Government under formally advertised procurements. But proprietary information often

[1] No "or equal" was called out in the procurement.

is requested in invitations for bids for evaluation purposes only and not as part of the purchase. Where, however, a need arises for establishing multiple sources of supply, section 9–202–3 of the ASPR prescribes procedures for securing the necessary proprietary information through research and development contracts or through direct contractor licensing arrangements with other producers. And if the Government desires acquisition of information developed at private expense, the ASPR requires that the price therefor be negotiated as a separate contract item and that when so acquired, the Government obtains an unlimited right to use the proprietary information for any governmental purpose.

On the basis of information presently before us, we believe that the regulation, as a whole, represents an equitable vehicle for safeguarding contractor's rights on the one hand and furthering the Government's military procurement program on the other. However, it appears to us that the problems inherent in this regulation may arise from the ASPR definitions of "data" and "proprietary data." That such seems to be the crux of the situation is apparent from the testimony given before your subcommittee on March 29–31, 1960. Industry representatives generally have testified that data and information developed at their own expense and which is personal to them constitute trade secrets, whereas, the military departments consider such data and information as not proprietary within the meaning of the regulation.

The terms "data" and "proprietary data" are defined in the regulation as follows:

"(*a*) 'Data' means writings, sound recordings, pictorial reproductions, drawings, or other graphic representations and works of any similar nature whether or not copyrighted. The term does not include financial reports, cost analyses, and other information incidental to contract administration.

"(*b*) 'Proprietary data' means data providing information concerning the details of a contractor's secrets of manufacture, such as may be contained in but not limited to its manufacturing methods or processes, treatment and chemical composition of materials, plant layout and tooling, to the extent that such information is not disclosed by inspection or analysis of the product itself and to the extent that the contractor has protected such information from unrestricted use by others."

In essence, these definitions have reference, in law, to trade secrets which the courts have recognized as a form of property right so long as they are protected by the owner from public knowledge or are disclosed only in confidence. The wrongful taking of the trade secret is an actionable tort as between private persons. Restatements, torts, sections 757; *Colgate-Palmolive Company* v. *Carter* (230 F. 2d 855); *E. I. Du Pont de Nemours Powder Co.* v. *Masland* (244 U.S. 100). However, where the trade secret is lawfully acquired, it may be used in any way unless disclosure is specifically restricted (170 A. L. R. 467). Hence, where the Government obtains information under the terms of a contract, possession is lawful, and subsequent misuse cannot be tortious; instead, relief, if any, must be predicated on breach of contract. As between private parties, the courts readily acknowledge the liability of a licensee for use of a trade secret beyond the scope of the license granted. (See *Gilbert* v. *General Motors Corporation*, 32 F. Supp. 502, affirmed, 133 F. 2d 997.)

In the case of *Dollac Corporation* v. *Margon Corporation* (164 F. Supp. 41, 59), it was held:

"It is now well established that the law recognizes a property right in trade secrets, and a court of competent jurisdiction will protect the right against invasion by one who appropriates trade secrets to his own use in violation of a contractual or confidential relationship (cases cited). However, the right to protection terminates upon public disclosure of the trade secret by the owner; the right of protection begins and ends with the life of secrecy."

It has often been stated that in contracting the Government steps down from its sovereign position and assumes the rights and duties of a private contractor (*Lynch* v. *United States*, 292 U.S. 571). But, in many areas, immunity of the Government is specifically conferred by a substantial body of Government contract law. Hence, in the absence of legislation, there is no estoppel or recognition of apparent authority of agents as against the Government (*Federal Crop Insurance Corporation* v. *Merrill*, 332 U.S. 38); general statutes of limitations do not apply (*United States* v. *Nashville, C. & St. L. Ry.*, 118 U.S. 120); no injunction may lie, even where the Government comes into court to sue on a claim (*United States* v. *Patterson*, 206 F. 2d 345), and the Government is not

liable for breach of contract arising from sovereign acts (*Deming* v. *United States*, 1 Cls. 190).

There thus remains for consideration the question whether the Government would be liable for breach of contract when it accepts proprietary information subject to the limitation that it be used "for Government purposes" but thereafter proceeds to disclose the information for a Government use without attaching the same restriction on the recipient's use. The only case found which would appear to have any bearing on this question is *Aktiebolaget Bofors* v. *United States* (194 F. 2d 145). There Bofors brought an action against the United States for damages arising out of alleged unauthorized use of an unpatented trade secret which was licensed to the United States to make the Bofors' antiaircraft gun in the United States for its own use. However, contrary to the license the United States transferred the guns to other nations for use in the war against Germany and Japan. The court held:

"The owner of an unpatented trade secret has a property right in it as long as he does not disclose it. His right to the exclusive use of it depends upon the continuance of secrecy. Any person who obtains the secret from him by theft, bribery, stealth, breach of a confidential relation, or unlawful means violates his property right and commits a tort. As Judge Holtzoff said in his opinion in this case, 'So long as the secret remains intact, anyone who invades it, is guilty of a tortious act.'

"The tort lies in the wrongful acquisition. But one who has lawfully acquired a trade secret may use it in any manner without liability unless he acquired it subject to a contractual limitation or restriction as to its use. In that event a licensee who uses the secret for purposes beyond the scope of the license granted by the owner is liable for breach of contract, but he commits no tort, because the only right of the owner which he thereby invades is one created by the agreement of disclosure. The owner could not maintain a suit against him for damages arising from unlicensed use without pleading and proving the contract. This being true, the gist of the owner's action is the breach of the licensing agreement.

"Here the Navy Department acquired the secret lawfully. Subsequent unauthorized use by the United States was, therefore, not tortious. * * *

"Even though a tort claim was not stated in the complaint, we should determine whether its allegations set up any other cause of action, for the label which a plaintiff applies to a pleading does not determine the nature of the cause of action which he states. Bofors' denomination of its suit as one arising under the Federal Tort Claims Act was a conclusion which does not prevent the court from recognizing any other form of claim which the complaint described. According to the allegations here, the United States acquired the trade secret subject to the contractual limitation "to make, use, and have made in the United States for the United States use' the devices therein described. If the United States used the secret process in manufacturing guns and ammunition for use by other nations, as Bofors alleged, it violated the agreement of June 21, 1941, and, consequently, the complaint stated a cause of action for breach of contract. * * *"

While that court dismissed the action on the ground that the complaint did not state a cause of action in tort, suit was brought in the Court of Claims for breach of contract and judgment was awarded on that basis. (See 153 F. Supp. 397.)

The usual situation which would arise out of administration of the ASPR probably would not be on all fours with the *Bofors* case, since third parties may be the recipients of proprietary data legally acquired by the Government. Probably no notice of the proprietary character of the information could be imputed to the recipient, and, in any event, this transfer of information constitutes public disclosure which is not subject to injunction or to a successful suit for damages. (See Restatement, Torts, sec. 758.) In such situation, the legal remedies available to the injured party are uncertain unless it can be said that the assumed facts involved fall within the theory of the *Bofors* case. In the absence of a specific case involving a breach of the confidence to not disclose, we are not in a position to advise you of the Government's possible liability for breach of contract.

It is believed that a considerable portion of the problem may rest with the ASPR definitions quoted above. A comparison of those definitions with those appearing in Words and Phrases, volume 42; Restatement, Torts, section 757; *Schreyer* v. *Casco Products Corporation* (97 F. 2d 159); and in the law dictionaries reveals some substantive difference. In the light of those authoritative

definitions, it appears that part of the ASPR definition relating to "reverse engineering" as constituting data as nonproprietary may be too inclusive. Since, ordinarily, the fact that such information might be disclosed by inspection or analysis of the product itself does not necessarily allow the grantee of such information the right to breach his duty to hold inviolate the secrecy of the information, your committee may desire to consider whether disclosure by the Government of "proprietary" data would be justified solely on the basis that "reverse engineering" removed the information to the public domain.

It would appear that where data or information is furnished and is denominated or restricted as "proprietary" in nature, such confidence should not be breached without approval of the owner or payment of just compensation therefor. In that connection, it is noted that 22 U.S.C. 1758 affords a legal remedy for the unauthorized use or disclosure of trade secrets by the Government in the administration of the mutual security program. Also, 10 U.S.C. 2273 authorizes a suit in the Court of Claims to recover compensation for the use by or for the United States of an aeronautical or aircraft component design developed by the injured person. And 10 U.S.C. 2386 authorizes the use of appropriated funds for the acquisition of designs, processes and manufacturing data. (See, in this connection, 37 Comp. Gen. 199.) In decision B–136916 dated August 25, 1958, there was considered the question whether an award properly may be made to the low bidder even though such bidder is not a licensee of the owner of the patent covering the articles to be procured by the Government. In holding that such low bidder is legally entitled to award notwithstanding possible patent infringement claims, we stated that:

"The invitation for bids on the procurement in question, which you state were opened on July 9, 1958, incorporates the standard clauses entitled, 'Notice and Assistance Regarding Patent Infringement'; 'Authorization and Consent'; and 'Patent Indemnity (Not Predetermined),' as set out in paragraphs 13, 38, and 42 of the 'General Provisions,' Standard Form 32, October 1957 edition. The authorization and consent clause apparently was included in the invitation for the purpose of invoking the statutory provisions of 28 U.S.C. 1498, as was done with respect to previous procurements of assemblies from this bidder. Under 28 U.S.C. 1498 it is provided, in pertinent part, that whenever with the authorization or consent of the Government an invention covered by a patent of the United States is used or manufactured by or for the United States without license of the owner or lawful right to the use or manufacture of the invention, the owner's remedy shall be by action against the United States in the Court of Claims for the recovery of his reasonable and entire compensation for such use and manufacture. These statutory provisions relieve the contractor entirely from liability of every kind for the infringement of patents in manufacturing anything for the Government and limit the owner of the patent to a suit in the Court of Claims for his reasonable compensation, which remedy has been held to be exclusive and comprehensive in character (*Richmond* v. *United States* (*1928*), 275 U.S. 331, 343). The purpose of these provisions was to make it possible for the Government to proceed with its procurement without fear of restriction or delay caused by patent infringement claims or controversies. See the letter of the Acting Secretary of the Navy dated April 20, 1918, quoted in the court's opinion at page 342, which formed the basis for the 1918 amendment to the statute clarify its effect as above stated (see also, *Bereslavsky* v. *Esso Standard Oil Co.* (*1949*), 175 F. 2d 148).

"In our opinion, to reject the low bid and make an award to one of the licensees for the purpose of enforcing and protecting the rights of the patent owners and their licensees would constitute an improver restriction of competition under the circumstances, and would not serve the interest of the United States which 28 U.S.C. 1498 was intended to secure, but would limit the application of the provisions of that statute. Under the provisions of the invitation, the United States receives the benefit of the low bid price offered, and is held harmless by the patent indemnity clause in the event of a suit by the patent owners in the Court of Claims. * * *"

The proprietary rights of a Government contractor were considered in our decision reported at 38 Comp. Gen. 667, wherein we held that the Government acquired unlimited rights in design data and drawings secured under negotiated supply contracts with the owner of such data and drawings by virtue of the ASPR clauses, "Rights in Data—Unlimited," included in such negotiated contracts. In that case, the contractor was advised to quote prices for the data, or, if a price were not quoted, the price of the end items would be considered to

include the cost of the data. On the record before us in that case, we were of the view that the contractor's proprietary rights were not violated but, rather, were acquired by the Government through contract to provide additional sources of supply.

Our Office has not conducted any audit review of the practices and policies of the Department of Defense under section IX, part 2 of the ASPR. Hence, we are not in a position to comment on the administration of the ASPR. However, if the testimony heard before your subcommittee indicates a real need for providing an adequate remedy to those contractors or subcontractors whose proprietary rights are infringed through administration of the military procurement program, we suggest that there be explored the possibility of extending to those contractors or subcontractors remedies similar, but not identical, to those provided in 28 U.S.C. 1498 in the case of patent infringement claims.

Sincerely yours,

JOSEPH CAMPBELL,
*Comptroller General of the United States.*

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APPENDIX No. 10

LETTERS RECEIVED COMMENTING ON "PROPRIETARY RIGHTS AND DATA" HEARINGS WHICH HAVE BEEN PLACED IN THE COMMITTEE'S FILES

Mr. J. P. Perry, president, Eastern Rotorcraft Corp., Post Office Box 110, Doylestown, Pa.
Mr. Wm. O. Fisher, Secretary, Swedlow, Inc., 6986 Bandini Boulevard, Los Angeles 22, Calif.
Mr. Elmer F. Ward, Task Corporation, 1009 East Vermont Avenue, Anaheim, Calif.
Mr. D. F. Craig, general manager, Coleman Engineering Co., Inc., 3500 Torrance Boulevard, Torrance, Calif.
Mr. George V. Young, president, Video Instruments Co., Inc., 3002 Pennsylvania Avenue, Santa Monica, Calif.
Mr. K. V. Hackman, president and general manager, Southwest Products Co., 1705 South Mountain Avenue, Monrovia, Calif.
Mr. O. M. Turner, general manager, Commercial Products Division, International Electronic Research Corporation, 145 West Magnolia Boulevard, Burbank, Calif.
Mr. Lisle D. Horton, president, Kittell-Lacy, Inc., 10816 East Fawcett Avenue, El Monte, Calif.
Mr. Marlan E. Bourns, president, Bourns, Inc., 6135 Magnolia Avenue, Riverside, Calif.
Mr. G. A. Mahoff, president, Gamah Corp., 1654 Lincoln Boulevard, Post Office Box 685, Santa Monica, Calif.
Mr. George A. Starbird, president, Meletron Corp., 950 North Highland Avenue, Los Angeles 38, Calif.
Mr. Richard King, Electric Indicator Co., Inc., Camp Avenue, Stamford, Conn.
Mr. D. Fitzpatrick, chairman, Special NEMA Task Committee, Allen-Bradley Co., Milwaukee, Wis.

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APPENDIX No. 11

TASK CORP.,
*Anaheim, Calif, April 9, 1960.*

Hon. ABRAHAM J. MULTER,
*House of Representatives,*
*New House Office Building, Washington, D.C.*

MY DEAR MR. MULTER: For myself, and the other members of our organization who testified at the recent hearings, I would like to express our thanks for the opportunity to present our views. We were nothing short of overwhelmed at the close attention and constructive question-and-answer sessions which were characteristic of the hearings.

It appeared, however, that in two extremely critical areas we were sorely misunderstood. First, during most of the small industry testimony, and especially during the testimony of Messrs. McGuire and Bannerman, there was expressed by you, and by other members of the committee, the thought that the terms of ASPR IX, part 2, were in themselves satisfactory to both industry and Government; that it was the administration and interpretation of the regulations wherein our complaint resides. Please believe me when I tell you that nothing could be further from the truth.

As expressed in my testimony, it was unfortunate that presentation of specific cases was necessary to enable us to bring attention to a grievous situation. As might be expected, none of the cases was "clean" to the point where only the specific problem could be clearly delineated. Instead, each case swept in with it sufficient irrelevancies to at times completely obscure the real issue. This, as I have stated, is an unfortunate situation and renders the hearings useful only as a vehicle to enable us to establish contact with the committee in the hope that the actual problem can be pointedly resolved.

I firmly believe that the majority of men in small business, large business, and the military clearly understand the full meannig of ASPR IX, part 2. Prior to the testimony of Mr. Bannerman, there was the possibility that we were reading into the regulation a harsher intention than that which was actually embodied. Mr. Bannerman removed all doubt on that point, however, when in his testimony he stated: "It (proprietary data) *does not* include information in the public domain on that which is disclosed by inspection and analysis of the product itself, *sometimes called 'reverse engineering'*." [The italic is my own.] I submit that portions of this definition of proprietary data, even though stated in reverse, are completely contrary to accepted definitions upheld by the courts of the United States.

I call your attention most particularly to that portion of Mr. Bannerman's statement wherein, by excerpting, it states: "Proprietary data * * * does not include information * * * disclosed by * * * reverse engineering." We will all agree that virtually any product can be "reverse engineered," although in many cases not to a completely interchangeable degree. We will further agree that, unless patents are involved, there is not and should not be, any protection from such action, provided there is no implication that the reverse engineered article is indeed the product of the original manufacturer. We do hold, however—and this is supported by many recent court actions—that to gain the "reverse engineered" information, the act of reverse engineering must actually take place. You cannot simply hold to the opinion that because, through a process of reverse engineering, it is possible to establish a set of drawings comparable with those used to originate the product, the original manufacturing drawings themselves have no proprietary content.

My second point is that small business does not, within the realm of the present problem, have a general complaint with the services or with the primes. In fact, the services have, on the whole, supported our views; and as for problems with primes, I feel that this is definitely an intraindustry problem and can be resolved at the source. It appeared, however, that when we would attempt to establish this point, the action was construed to be the result of fear of reprisals. This simply is not true, at least in my own case.

Stated bluntly, our problem is with the Department of Defense. This organization, acting under the authority of the Congress, establishes the rules by which the services must conduct their procurement. When the rules are changed at the source, the services and the primes have no choice but to react in a manner which demonstrates compliance with these rules.

When the services and the primes misapply the rules, I feel it is the duty of the businessman to set things right at the time of the infraction. This, of course, assumes that the businessman is aware of the rules and knows what to do about it. In my opinion, if he does not know the rules, and does not know what to do about it, and further is not going to take the effort to find out, then this is a matter for his stockholders to get concerned about, but is not a proper subject for congressional action except as remedies are required for any monopolistic behavior.

Here, then, in my case: 1. ASPR IX, part 2, is definitely unsatisfactory as it presently stands. It should be modified to provide for at least the same respect for proprietary rights as the courts have long recognized. I am sure that satisfactory wording can be worked out with responsible members of the DOD and small business. 2. At the present time, at least, our complaints, seemingly directed at the services and the primes, are in reality directed at the DOD. There is no evidence of a consistent effort by the services or the primes to take from small business anything which is not specifically provided for in ASPR IX, part 2.

I wish to thank you again for the opportunity to express our point of view on a very involved subject. Please feel free to call on me for additional information at any time. This is a major problem area and is definitely restricting the participation of our company in the defense effort. I will, therefore, arrange to meet with you at any designated time or place if it will help to resolve the basic issue of proprietary rights in Government procurement.

Sincerely yours,

ELMER F. WARD.

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APPENDIX No. 12

SOUTHWEST PRODUCTS CO.,
*Monrovia, Calif., June 14, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Subcommittee No. 2, House Small Business Committee,*
*New House Office Building, Washington, D.C.*

Subject: Bearing BSR–40150–GC.

DEAR MR. CONGRESSMAN: We are sorry that we are so late in writing you; we just received the information from Douglas Aircraft Co. verbally.

Attached are copies of a letter and statement from the two companies involved per our congressional meetings in March.

Thank you.

Very truly yours,

K. V. HACKMAN, *President.*

The following statement was given orally by Mr. James McMillan, member attorney of the legal department, Douglas Aircraft Co., Inc., Santa Monica, Calif., to Mr. Karl E. Giesler, sales engineering representative, Southwest Products Co., Monrovia, Calif., on June 8, 1960:

"After a thorough investigation of the Douglas Aircraft Co. files, it has been determined that Southwest Products Co. detailed prints, reproduced from a reproducible drawing submitted by the Southwest Products Co., had been given to the Air Force by the Douglas Aircraft Co. Long Beach part sales department.

The Southwest Products Co. BSR–40150–GC detailed print was an item included with many other items required by the U.S. Air Force per their parts provisioning requirements as requested by them (USAF) to the Douglas Aircraft Co.

It also may be noted that all markings regarding proprietarism and disclosures as noted on the Southwest Products Co. drawing (and/or prints) remained intact when given to the U.S. Air Force people. I believe that your asset in the matter is recognized by the fact that your prints were well placarded as to proprietarism, etc., and that the Douglas Aircraft Co. recognized this and in turn the Air Force was put on notice as to the proprietarism also."

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THE CLEVELAND PNEUMATIC TOOL CO.,
A DIVISION OF CLEVELAND PNEUMATIC INDUSTRIES, INC.,
*Cleveland, Ohio, April 19, 1960.*

SOUTHWEST PRODUCTS CO.
*Monrovia, Calif.*
(Attention: Mr. K. V. Hackman, president and general manager).

Subject: Bearing BSR 40150–GC.

GENTLEMEN: The subject bearing is used in 9407 series landing gear assemblies, which was designed for the Douglas model C–133 airplane.

We have not at any time furnished drawings on the subject part to the U.S. Air Force.

Very truly yours,

T. J. TOMCO.

APPENDIX No. 13

SUGGESTIONS FOR NEW ASPR BY DENHAM S. SCOTT, JOHN MARSCHALK, AND ROBERT R. LENT

SANTA MONICA, CALIF., *June 23, 1960.*

Hon. ABRAHAM J. MULTER,
*Chairman, Subcommittee on Small Business and Government Procurement, Select Committee on Small Business, House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: We very much appreciate the opportunity given us to respond to the Department of Defense review of the testimony given by Messrs. Marschalk, Lent, and myself during your March 29–31 hearings.

The Defense Department comments, as presented to you by Mr. Bannerman, have been carefully studied by the three of us in an effort to discern ways in which we can build upon the exchange of comment to accomplish what I think we all now agree is absolutely necessary—a prompt and constructive revision of the regulations dealing with proprietary rights in technical data, ASPR IX, part 2. Please regard this letter as a coordinated reply by the three of us.

In comparing the Defense Department letter with the testimony given by us at your hearings, we are initially struck by the number of points raised in our testimony to which the Department has not responded. One such major point is the fact that the sentence in ASPR dealing with the treatment of subcontractors (ASPR 9–202.1(a)) is self-contradictory. As you will recall, this sentence starts out by saying that "the acquisition of data from a subcontractor shall be governed by the nature and circumstances of the subcontract," a statement which clearly implies that a subcontractor furnishing the type of items normally purchased by Government under supply contracts would be entitled to the same relief from data requirements as he would if he were selling direct to Government. Yet, at the end of this statement, it is negated by an instruction to obtain the rights "required by the Government under the prime contract."

Our feeling is that a very great part of the injury done to subcontractors, most particularly the small original-design producers who testified at your hearing, has been caused by this ambiguous statement. It has resulted in the inevitable "sweep-in," to which Mr. Bannerman alluded in his original testimony, of substantial privately originated data, without compensation.

In fairness, it would undoubtedly have been difficult for the Department to answer many of the points raised and perhaps impossible to respond to all of them in a single communication. We will then confine ourselves to the specific items which the Department letter of April 22 did cover (A) the principles "which should be embodied in any regulation pertaining to the use and acquisition of data by the Government" and (B) the five points common to our testimony which the Department has selected for comment.

A. PRINCIPLES FOR REGULATION

Three principles are asserted by the Department letter. The first of these is:

"(1) Private development of items useful to the military must receive maximum encouragement."

We, of course, agree. Very similar statements now appear in the present ASPR, notably in ASPR 9–202.1 which mentions the desire to "encourage inventiveness" and again in 9–202.3 which speaks of the "Government's interest to foster private development." The difficulty has been that the balance of the regulation, in our belief, runs directly counter to the concept of encouraging private development. Why this is so is perhaps best illustrated by the second of the principles now advanced in the Department's April 22 letter:

"(2) Generally, the Government should acquire the means to establish competitive procurement, but not at the expense of destroying incentive to devote the best private technical resources to defense problems and requirements."

In saying that we most sincerely disagree with this so-called principle, we wish to make clear that we are completely in accord with the thought that the Government should definitely seek to stimulate maximum competition among its suppliers. Unless there is an intense desire by the best private technical resources to get in and compete—just as they get in and compete in the world of private industry and commerce—the Government procurement system will inevitably acquire inferior merchandise at excessive prices.

Since we are dealing with principles, it seems constructive to compare the position of Government, in its pursuit of economical procurement, with the position, for example, of the largest industrial type of buying operation, any large manufacturer. It should be axiomatic—since the aim of the manufacturer is profit and since the best buy at the most economical price is a requisite to profit—that the manufacturer has compelling incentive to obtain the most effective competition among its own suppliers. The manufacturer wants the best possible deal, not from a matter of philosophy, but from a cold and unemotional premise of dollar efficiency.

Considering how often industrial competition has been dubbed "ruthless," it must give pause to thought to find small original-design producers saying, as they did at your hearing, that they now prefer to seek developments in the general commercial field over the risks of doing business with their Government.

The explanation, we believe, lies directly in the so-called second principle stated above. More particularly, it is in the phrase "the Government should acquire the means" to establish competitive procurement. What are the "means" which this phrase contemplates? How and from whom are they to be acquired?

Are the only "means" to competition, as the Department sees it, the data which describe what a manufacturer makes and how he makes it? If such is the case, we are at a dead end before we start, because such data—barring the actual practice of reverse engineering—originate only with the manufacturer and are obtainable only from the manufacturer.

The principle, as stated, then presents an insoluble dilemma: Any general intent to acquire the means (data) to establish competitive procurement (as the Department interprets the term) involves obtaining the data from the sources of the products; faced with such "general intent," will not the "best private technical resources" automatically suffer the destruction of their incentive?

We submit that they have and they will and that it is this underlying philosophy which is now destroying the "maximum competition" which the Congress and the Department wish to promote.

If we return to our comparison with industry, where competition is economically forced to be intense, we find there is neither "general intent" to acquire manufacturing data from original-design producers, nor a practice of acquiring or furnishing such data. "Reverse engineering" is practiced to some extent, but as a matter of general practice customers usually find it to be uneconomical. Either it is too risky, which even for simple-appearing devices is more often true than not, or it is just unwise in terms of selfish interest, because it drives creative suppliers away from the purchasing department.

Moreover, on the rare occasion when data of a design nature are furnished to industrial customers, it is almost invariably furnished with a restrictive notice establishing the proprietary nature of the data. Such notices (as illustrated by the *Schreyer* v. *Casco Products* case cited in testimony) are honored by the courts and the point is made clear that even though information contained in such data might have been obtained by reverse engineering, it may not be used with impunity unless such reverse engineering is, in fact, performed.

Since industry does, in fact and by economic necessity, obtain the maximum of competition among its suppliers, and since it does so under restrictions of law which prohibit the use of supplier data, we feel it must be reasonable to conclude that Government is not precluded from stimulating maximum competition by alternate means. Such means are commented upon later in this statement. At this point, we believe we can move forward if we offer the suggestion that the second "principle" can be made acceptable only if restated along the following lines:

"(2) Generally, the Government should seek to stimulate maximum competition among its suppliers, but not at the expense of destroying incentive to devote the best private technical resources to defense problems and requirements."

If we can agree on this restatement, we then have no problem in respect to the third principle which says that the policy in support of (1) and (2) must be most clear to industry and Government personnel, alike.

### B. POINTS OF TESTIMONY

The Department letter next comments on five points of testimony which were raised by each of us (Marschalk, Lent, and Scott). These points are:

1. Definition of proprietary data.
2. Type of protection industry could reasonably expect.
3. Effect of such specifications as MIL–D–70327, etc.

4. Vendors' problems with prime contractors.
5. Imposition of a dual drawing system.

We will take these up in sequence.

*Point No. 1. Definition of proprietary data*

We are, of course, pleased with Mr. Bannerman's recognition of the fact that the definition is in need of change. Unfortunately, he goes on to say that the need is to change the language, not the intent. The essence of the change would be to clarify the application of the "reverse engineering" concept so that what would be considered "proprietary" would include any data not readily revealed by the product itself, rather than only (as now) the data which are considered incapable of being reverse engineered.

Again, we must urgently plead that if the first principle proposed by the Department, to give "maximum encouragement" to private development, is to be genuinely pursued, a mere modification of the present approach will fall far short of the purpose. Without wishing to indulge in extravagant language, we sincerely feel the great majority of all private developers would regard such a change as merely equivalent to reducing the crime from murder to manslaughter. There is little inducement to be the victim of either.

We take sharp exception to the apparent DOD philosophy that a representative of Government, having gained possession of privately created drawings of a private manufacturer's products, should be permitted from an examination of these drawings to deduce that the items could be reverse engineered, and that therefore the Government's agent has the right to give the manufacturer's drawings to a number of third parties.

None of us, nor anyone in industry, is objecting to "reverse engineering" as such. As earlier mentioned, industry as a customer seldom engages in the practice merely because it is risky and generally contrary to best self-interest. But it is entirely legal. Any competitor who wishes to take one of our nonpatented products and reverse engineer it, is entirely free to do so, so long as he does not market it in such a manner as to make it appear that it is ours. He should have this same freedom in his effort to compete for Government sales. None of us proposes that Government restrain competitors from doing this. It is a risk normal to the competitive system and not one of us has asked for an extra edge to be induced to produce our best for Government uses.

We ask the committee to keep in mind, however, that the past and proposed method of the Department of Defense is abnormal to the competitive system. Industry does not furnish manufacturing drawings of its products to its industrial customers. It carefully restricts these drawings to its own operations. Neither does it have a second set of "almost-manufacturing drawings." The only types of drawings to which it gives general circulation are little more than outline sketches intended for identification in catalogs. Such drawings are not produced on all parts, nor on all assemblies, and many companies do not have them at all.

In contrast, the Department of Defense always (the inclusion of MIL–D–70327 is a mandatory requirement in all DOD contracts) insists on the submittal of the contractor's detail manufacturing drawings. Seldom if ever, does the Government offer to negotiate a price for manufacturing rights to these drawings. Seldom, if ever, does the design manufacturer sell the manufacturing rights. It is the last thing a manufacturer wants to sell unless he already has a vastly improved product ready to supersede the article which the drawings cover. This seems like a point obvious to all, for the very reason that it is the intelligence reflected by these drawings which enabled the manufacturer to get in business in the first place.

Recognizing the Government's reasonable need for manufacturing drawings for purposes of maintenance and repair, the manufacturer departs from his normal sales practice and gladly furnishes copies of his drawings (at no cost for manufacturing rights) so long as the Government receives the drawings for all its legitimate purposes other than manufacture. But he feels that he has been tricked and cheated by his own Government when it hands his drawings over to ersatz competition on the weak pretext that his products could have been reverse engineered.

Summarizing on this point, if there is to be incentive for private developers to submit their best products for Government use, any definition of "proprietary data" which sets up a judgment function as to what could have been done (without the necessity for doing it) will fail.

*Point No. 2. Type of protection that industry could reasonably expect*

The Department letter dwells on this point at considerable length. We can see that Mr. Bannerman has given the matter searching study and are fully appreciative of his problem in having to resolve what he believes may be a conflict between the wish of Congress (and the public) to have maximum effective competition in procurement, and the wishes of industry in respect to recognition of its proprietary rights in drawings.

We do not believe there is any true conflict. We believe that the public and the Congress, reflecting the wishes of the public, wants the right freely to use all intelligence (drawings, data, etc.) created at public expense. The basic issue, however, is "manufacturing drawings developed by industry at private expense." This is the entire subject of our testimony and of the testimony of all other industry representatives who appeared before your committee.

The procuring services are currently in possesion of millions of these privately created drawings. Notwithstanding the policy statement in ASPR IX, part 2, which indicates that they are often not needed and therefore should not be required, a written directive by the Assistant Secretary of Defense does require the standard use of MIL–D–70327 in all military contracts, and this specification does require that drawings shall be prepared and submitted in strict and detailed format.

Industry's position is simple and clear: These drawings are the private property of the private parties who spent the time and the money to create them. This is true regardless of the information they contain. Like any other private property, the owner can dispose of these drawings in any legal manner he chooses. He can give them away, sell them, loan them, or release them for stipulated purposes, only. Their value cannot be measured in terms of the paper, ink and time required for physically preparing them; their true value resides in the information or data thereon, and the rights to use that data to convey the intelligence which it represents. The right to use the drawings to convey the intelligence reflected by them is the primary right of ownership.

A good illustration can be obtained by carrying the point to the ridiculous. Suppose that a manufacturer of valves is foolish enough to spend his time and money to create a drawing for a standard and commonplace 10–32 machine screw. He assigns his own part number and uses his own title block. The manufacturer owns that drawing. He does not own any rights so far as 10–32 screws are concerned. If the Government wants the manufacturer's drawing, it must get it under the terms of use agreed to by the manufacturer. This in no way stops the Government from getting all the 10–32 screws it wants from countless sources, but it has no right to use this manufacturer's drawing of a 10–32 screw to manufacture them unless the manufacturer has agreed to release the drawing for that purpose.

Is this position reasonable? Indeed it is. The knowledge of the production of 10–32 screws is in the public domain and, therefore, it can be obtained from the public domain and the Government's position in respect to getting competition for the production of 10–32 screws is completely protected. To contend that because the information is in public domain, the manufacturer's rights in his drawing need not be respected, is to introduce a factor of judgment to which the manufacturer is not a party. When the Government assumes the arbitrary right to decide what part of a manufacturer's drawing is, or is not, proprietary, a dividing line of justice can no longer be drawn.

More particularly, if the intelligence conveyed by a drawing is truly in the public domain, no need for the Government to use the drawing for manufacture can be shown to exist. The very assertion of the need to use a privately created drawing for the purpose of letting others have it as a means of manufacture is proof positive of the values of ownership which industry reasonably wishes to preserve.

As earlier noted, the preservation of this ownership right is not different from that which maintains in industry's dealings with itself. It is not an extra privilege; it is an existing legal right.

It may be contended that the interest and needs of the Government are supranormal—above and beyond the importance of protecting the rights of the individual. If this contention be maintained, we are surely no longer talking about incentive, we are down to the level of forced submission.

Which is reasonable? Which attracts to the Government the most competent suppliers with the most advanced skills? Which stimulates the greatest competition among those who can contribute technological advance?

The answer seems most clear: Respect for rights attracts; disregard repels.

The protection which industry can reasonably expect from Government is to recognize and respect the private manufacturer's rights of ownership in all the intelligence conveyed by drawings created at private expense. When this is done, the practice can be made simple; the question can be asked, "Does the Government wish to purchase the manufacturing rights?" If the answer is "No," the contractor places a restrictive legend on all the drawings. If the answer is "Yes," the two parties negotiate accordingly.

Before leaving this point, we should take note of the implication in the Department letter that what industry people really want is a device by which they can establish themselves as "sole sources." We see a most important difference between wanting to be a "sole source" and wanting to restrict the Government from using our privately created drawings to put a so-called competitor in business. In the true competition of normal commercial practice, there is no access by one manufacturer to the drawings of another. Companies make every effort to keep abreast of what their competitors are doing, but no reputable company would resort to stealing a competitor's design details and would certainly claim no right to do so.

The best competitive effort is not to copy but to excel. This is an intense part of business life. It contributes to the technological progress of the whole Nation, a progress which exceeds all others. Quite frequently, products of quite different concept and design are offered to accomplish the same function, each with its claims of superiority in one or more aspects.

This type of competition stimulates the muscles of creativity. There are no "sole sources," but rather a wide range of choice among ever-improving designs. No other type of competition, we feel, could better serve the country in its present need.

Regardless of this fact, ASPR IX, part 2, itself describes how the so-called sole-source problem can be met—and does so in a manner that (if definition and practice were otherwise corrected) provides solutions which would have the full cooperation of industry. It is well to quote this provision, because it is one of the better features of the ASPR, but unfortunately one which might as well have never been included, because it is virtually dead from disuse:

"9.202.3. *Multiple sources of supplies.*—The Government's interest in establishing multiple sources for supplies and services arises when it is necessary to (i) insure fulfillment of its current and mobilization requirements or (ii) permit competition for defense procurement to avoid unreasonable prices. The policies in this part provide one means for accomplishing this objective and are particularly effective where data, other than 'proprietary data,' acquired by the Government, are usable, without more, to obtain multiple sources. Where the use of 'proprietary data' is necessary for the production of an item developed at private expense, it is the policy of the Department of Defense to honor the proprietary nature of such data since it is recognized that it is in the Government's interest to foster private development of items having military usefulness. Accordingly, 'proprietary data' not otherwise obtained pursuant to the policy set out in ASPR 9-202.1(c) will be obtained by the Government for the purpose of establishing multiple sources only where such sources cannot otherwise be established. This should occur only in isolated cases as necessary to achieve the objectives in (i) and (ii), above. In preference to having the Government obtain 'proprietary data' for the purpose of creating multiple sources, it is the policy to achieve these objectives to the extent possible through one of the following procedures:

"(i) The acquisition by the Government of 'proprietary data' developed at private expense may be unnecessary where the primary source is willing to establish other sources by direct contractor licensing arrangements without Government participation. Where complex technical equipment is involved and the establishment of a satisfactory second source will require, in addition to data, technical assistance from the primary source or Government facilities or other unusual assistance, Government participation in any licensing and technical assistance arrangements between contractors may be necessary to protect the Government's interest with respect to such factors, among others, as—

(*a*) investment in facilities;
(*b*) competency of source;
(*c*) timing of establishment of second sources; and
(*d*) allocation of orders among sources.

"(ii) The acquisition of 'proprietary data' developed at private expense may be avoided in many cases by providing for the development of suitable substitutes for such sole source items through the use of performance specifications.

"No single method can be prescribed for meeting the second source problem; each situation must be handled on its own merits."

It is worthy of observation that in time of national need many small companies have contributed specialized know-how, methods, products, and even machinery to large customers whose emergency demand was greater than the small supplier's capacity to produce, only to lose the customers entirely when the volume of requirement fell off, because the customers then had the means to handle their reduced needs in their own plants. We are confident the same types of small firms would do the same thing again, and we make note of this fact merely to supply food for thought among those who wrongly assess the motives of those who seek relief in this rights-in-data problem.

*Point No. 3. Effect of such specifications as MIL–D–70327, etc.*

The Department letter makes a detailed analysis of how the provisions of one document may override another, how the terms of a prime contract may be interpreted to preclude the necessity of manufacturers furnishing information otherwise required by a referenced specification, or ordered to be secured from subcontractors by a provisioning document such as MCP–71–673 or SAR–400.

The complexity of this explanation appears, in itself, sufficient to establish the fact it is almost impossible to trace a clearcut path by which to be guided. The testimony presented at the hearing demonstrated clearly, regardless of what is supposed to happen, as the DOD sees it, it does not happen that way.

We suggest that the committee can best determine the position of a prime contractor in its effort to comply with specifications and contract terms—let alone the position of a subcontractor trying to resist unwarranted demands—if it obtains copies of the ASPR, the AFPI, the NPD, and the APP, plus copies of all the referenced specifications, plus copies of actual prime contracts in effect between one prime contractor and each of the three services. The burden imposed will then appear in its true light.

It should be further pointed out that many prime contracts now in effect contain the "unlimited data clause" of the prior ASPR IX, part 2. Others containing the new basic data clause do not contain either ASPR 9–203.2, or ASPR 9–203.4. Still others contain ASPR 9–203.1 and 9–203.2, but contain an additional provision agreeing that "none of the data specified to be delivered is proprietary"—an agreement to which the prime may have felt himself forced to agree, but which then also binds him in his relationships with subcontractors who have not been party to such agreement.

While, as the Department letter states, it may be "hard to see how these subsidiary contract documents can be construed contrary to the express provisions of the required clauses of the contract," we have talked with a number of competent attorneys whose sole function is to interpret contract requirements for their defense company employers and we find a substantial concert of opinion that the effect of the various clauses is not at all as the Department has interpreted them in its explanation. The committee will remember the evidence submitted in which Mr. Mars, of the Navy Department staff, made unequivocal the demand that the data prescribed in MIL–D–70327 must be obtained from subcontractors.

It is quite one thing to interpret the legal effect from the vantage point of the DOD, quite different to be in the shoes of a prime contractor who is told that if he does not deliver all the data which the procuring service regards as requisite under the specifications, he will not even be paid for his products. The committee will recall the further evidence submitted in which a prime contractor who encountered supplier refusal to furnish data sought relief in the form of an interpretation from the military service. The response, as the committee noted, was that either the data must be obtained or the subcontracts not placed.

*Point No. 4. Vendors' problems with prime contractors*

As handled in the Department letter, this point is really an extension of point No. 3. The assumption taken is that primes are, in fact, obtaining data from their subcontractors which they are not required to obtain.

It is interesting to note from Mr. Bannerman's original testimony a statement that a research and development contractor is required to provide all the infor-

mation necessary to manufacture—not just that information developed under the contract and for which the Government has paid—but all the information necessary to manufacture, whether paid for or not.

Perhaps the problem, in practical application, can best be understood by examining a not-too-hypothetical case. The Air Force awards a research and development contract to North American for the B–70 aircraft. North American, in turn, selects AiResearch Manufacturing Co. to develop the air data system. Among the components required for the air data system will be a highly sophisticated valve assembly of a type in which Airborne Research & Development Corp. specializes. AiResearch states its size and performance requirements to Airborne Research (one of the small companies represented by Mr. Dick Hahn at the hearings) and to several other firms which may be able to fill the need. AiResearch also indicates the quantity it expects to need.

Mr. Hahn's company studies the requirement, determines that it can design the required valve based on its prior experience and proceeds to quote AiResearch a fixed price on the proposed quantity of valves. Among the several competitors for this order, AiResearch feels Mr. Hahn's proposal is best. It places the order with Mr. Hahn.

Obviously at this point, the small businessman has assumed all the risk. He has no contract with either North American or the Air Force. He has only a purchase order from AiResearch, who will pay him for his valves at the agreed price when he delivers them, provided they perform as represented. In short, he is financing all his own development, and if he doesn't deliver a satisfactory end product, he will have a plant full of unsalable goods and no money.

But what are the contractual requirements imposed upon him? North American has, in its R. & D. contract, accepted the "unlimited rights in data" clause, coupled with the requirement that it must pass it down, which it did to the AiResearch Manufacturing Co., with the same stipulation that the same clause must be passed down to any and all of its subcontractors. Mr. Hahn's product is not a "commercial item," having no use except in this application. It is not a "previously developed product" except in the sense that it fully employs all the intelligence gleaned from all the products previously developed by and at the expense of his company.

Neither has Mr. Hahn been paid for his development expense. Recognizing his competition, his quotation on the initial lot doesn't represent development recover; he gambles that opportunity for future sales will justify the risk. Yet he must accept the unlimited rights in data requirement and he must comply with all the demands of MIL–D–70327, both of which requirements, even by the Department's interpretation provided under point No. 3, must be passed down to him.

Since Mr. Hahn's company is furnishing an item of supply at a fixed price, it is pertinent to note that the Department would not impose this same data requirement if it were purchasing the same items directly. ASPR states that such data are not to be obtained under prime supply contracts. Yet the policy in ASPR 9–202.1(a) as cited by Mr. Bannerman in his testimony calls upon the prime to obtain from the subcontractor all the data and rights "required by the Government under the prime contract." Since this is a prime R. & D. contract, even though it is a supply subcontract, none of the so-called exemptions cited by Mr. Bannerman in the various forms of contract data clause would excuse Mr. Hahn from furnishing full data with unlimited rights and without compensation.

This sort of thing is happening daily to small inventive businesses throughout the country. For a full picture of its extent, the committee might obtain from the Defense Department an estimate of dollars spent under prime contracts containing the unlimited rights clause as a percentage of the total of all dollars spent under all prime contracts. The greatest amount of subcontracting with small businesses—probably more than 90 percent of the total—is conducted under prime contracts containing such clause.

Obviously this is grossly unfair. Obviously it provides none of the incentive to which the departmental policy is nominally committed.

It arises, of course, from an assumption that the dollars spent by the Government under an R. & D. type contract actually pay for the development of all the items which become components of the end product. Nothing could be further from truth. Nothing could be less conducive to the participation by the best private technical resources.

*Point No. 5. Imposition of a dual drawing system*

It is heartening to learn that the Department is "proposing to undertake an extensive survey of a variety of activities for which * * * a need for manufacturing drawings has been claimed." We agree that many manufacturing drawings are indeed being obtained without clear establishment of need.

At the same time, the Department's letter oddly repeats the policy "to limit demands for data," etc., contained in ASPR 9–202.1 in something that sounds a bit like surprise over the fact that such policy is not being followed in practice. We say this is odd, because of the earlier reference to MIL–D–70327. This document specifies the form in detail as a standard to which all drawings required under any contract shall be prepared. As we have earlier noted, this specification is "mandatory" in all military contracts—and by order of the Assistant Secretary, Hon. Perkins McGuire, whose office has responsibility for the ASPR.

Given the assumption, taken under point No. 3 of the Department's letter, that certain bits and pieces of information may be considered to come within the present limited definition of "proprietary data" and hence might be excludable, the basic requirement to prepare and furnish the drawings in accordance with MIL–D–70327 is nowhere relieved by any contract clause.

It was our endeavor to point out in our original testimony that while manufacturing drawings complying with MIL–D–70327 are matters of common practice with industry, these drawings with such deletions as are permitted under present definition of "proprietary data" do not exist. They can only be created as a special project, and at substantial expense.

So long as MIL-D–70327 is mandatory in all military contracts, and so long as it is required to be passed down to subcontractors, manufacturing drawings are automatically required. So long as MCP 71–673, MCP 71–77, SAR–400, and other such provisioning documents are imposed, the drawings must not only be prepared but furnished to the Government.

Finally, even if a contract clause does permit some deletions from the information called out in these specifications, the result of the deletions is to create just one thing—a second set of drawings. We have been criticized for calling such drawings "expurgated," "emasculated," or "phony" so we shall merely reiterate that they represent an extensive waste of taxpayer's money.

*Conclusion*

We are still hopeful that a revised regulation can be accomplished which will, in fact, support the principles enunciated—with the amendment to the second principle, as suggested.

We, and the representatives of the Department of Defense, are aware that a regulation to supply incentive cannot be accomplished by a statement of policy to encourage private development if the details of the regulation are craftily devised to obtain or use data not developed at Government expense.

The test of who paid for the development of the information contained in the data strikes us as the simplest and fairest test of all. No member of the Congress, nor of the public, we feel sure, would want to demand a procurement practice in which that which is not paid for is forced to be committed to public use. The mere payment for the cost of producing copies of privately created drawings is assuredly not payment for the intelligence they contain.

Thus a fair policy can be simply evolved if it permits a contractor to mark his drawings with a certification to the effect that the drawing was privately developed and is therefore restricted as to use. Use of such certification could be tied to a penalty for fraudulent application. Given this premise, all the rest of the problems might be rendered far less complex.

As earlier mentioned, this letter has been coordinated with Messrs. Marschalk and Lent and we mutually express our appreciation for the opportunity to submit this added comment.

Sincerely yours,

DENHAM S. SCOTT.

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